GUY'S
HOSPITAL
GAZETTE

NEW SERIES

VOL. 26

1912

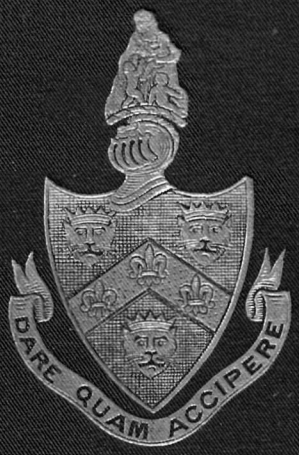
GUY'S

GUY'S HOSPITAL GAZETTE

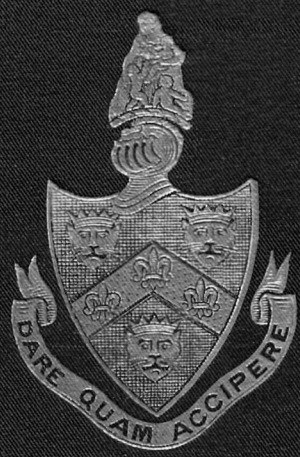
NEW SERIES

VOL. 26

1912



Guy's Hospital Gazette.



Guy's Hospital Gazette.

Arthur Bullerd

The Wills Library
Guys Hospital Medical School
London, SE1 9RT

GUY'S HOSPITAL GAZETTE.

VOL. XXVI.

NEW SERIES.

1912.

LONDON:
ASH & Co., Ltd., Printers, Southwark, S.E.
1912.

INDEX.

PAGE

Abscess, left-sided subphrenic, due to an empyema of gall bladder 312
Abscess, psoas, an unusual case. T. B. Layton 44
Abstract of Dispensary and Pharmaceutical Laboratory Report for 1911 73
Accounts, Statement of, for Guy's Hospital Dance, 1911 79
A Cry Answered 343
Act, Insurance, The 181, 208, 227, 303
Acute otitis media 69
Address, Change of ... 3, 40, 47, 68, 86, 107, 123, 143, 179, 187, 209, 228, 257, 277, 292, 314, 331, 363, 368, 391, 421, 447, 476, 496, 511
A few therapeutical points. Dr. H. French 195, 214
Anæsthesia, intravenous ether. E. G. Schlesinger 204
Anæsthetics 22
An appreciation—John Wade, D.Sc. 348
Anatomy of cervical ribs 153
Anatomy Class, an advanced—structure of joints. By T. B. Layton, F.R.C.S. 3
Anatomy, constructive 416
Apothecaries' Society Pass Lists ... 19, 184, 496
Appendicitis, chronic, clinical lecture by F. Steward 210
Appendix. Is it wise to remove when there is a localised abscess? R. P. Rowlands 164
APPOINTMENTS—
Civil ... 19, 28, 43, 64, 87, 104, 139, 143, 187, 213, 229, 248, 282, 296, 307, 335, 350, 372, 400, 446, 466, 474, 496
Colonial 87, 248
Dental 28, 123, 282
Examiners 143
London University 64
Medical School ... 18, 139, 247, 282, 307, 400, 533
Naval and Military ... 19, 28, 43, 64, 87, 104, 139, 143, 173, 187, 213, 229, 248, 282, 296, 307, 350, 372, 400, 430, 446, 465, 474, 496, 533
Territorial Force ... 19, 64, 229, 248, 282, 296, 372, 446, 466
Appointment of dentist to King of Hellenes 366
Appreciation, an—John Wade, D.Sc. 348
Artist in the Park, the 444

PAGE

Ascites, a case of pseudo-chylous. Mahon and Ryffel 27
Aspirin and aborted pneumonia. A. Scott ... 502
Ashton, Dr., London Missionary Society ... 475
Assault-at-arms 147
Assheton, Richard. A review of the "Enzyme Treatment of Cancer" (see also Beard, John) 65
Astley Cooper Concert 16
Athletic Club 243
Aural Department, three cases from 313

Bacteriological Incubator, a new form of ...421, 446
Bacteriological and Vaccine Department, returns of the, 1911 134
Bacterium prodigiosum, preliminary notes on a case of infection by the. By H. M. Woodward and K. B. Clarke ... 369
Ball, the Guy's Hospital 372
Barker, Captain F. A. More days in the I.M.S. 78, 521
Beaney Prize 290
Beard, John. The Enzyme Treatment of Cancer (see also Assheton, Richard ... 124
Biennial Dinner 22, 194, 227, 249
Births ... 20, 40, 60, 80, 120, 140, 160, 180, 200, 220, 241, 264, 284, 304, 321, 344, 364, 384, 403, 432, 448, 468, 488, 508, 536
Books received in Wills Library, list of ...137, 287
Borough and London Bridge in 18th Century... 241, 251, 276, 299, 319, 332, 350, 381, 428, 442, 461, 483, 499, 528
Boycott, Dr. A. E., appointment to Manchester University 471
Bridge, London, and the Borough in 18th Century ... 241, 251, 276, 299, 319, 332, 350, 381, 428, 442, 461, 483, 499, 528
Bright's Disease, ocular changes in. A. W. Ormond 476
Bright, Richard, abroad. Dr. F. H. Garrison 370
Brook, Francis W. Cause and treatment of certain cases of neurasthenia... ... 452
Brydone, J. M. The lessons of a failure in interpretation 426
Bumm, Professor E. On the treatment of peritoneal wounds 84

PAGE

Cæsarean operation in North China 480
Calendar, Students' 38
Cambridge University Pass Lists ... 19, 24, 47, 223, 272, 359
Cameron, Dr. H. C. The causes and varieties of infantile diarrhœa and vomiting... 88
Caseous mediastinal glands 355
The treatment of some varieties of diarrhœa and vomiting in infants ... 129
Canal, alimentary, X-ray diagnosis of disorders of. A. F. Hertz 105
Cancer of rectum and pelvic colon. C. H. Fagge 252
Some recent advances in treatment of. R. A. Chisolm 113
Treatment of, clinical lecture by Dr. Coley 7
The enzyme treatment of 65, 124
Cards, Christmas 42, 491
Caries, some factors in the prevention of dental. R. D. Tanner 25
Carlill, Dr. H. Change of Name 24
With Professor Kitasato in Japan ... 297
Rochester 238
Case, a, from general practice 225
From Genito-Urinary Department 301
Cases shown on Mr. Symonds' last round ... 308
Three from Aural Department 313
Caseous mediastinal glands. Dr. Cameron ... 355
Centenary of Dickens 54
Century, the Eighteenth, London Bridge and Borough ... 241, 251, 276, 299, 319, 332, 350, 381, 428, 442, 461, 483, 499, 528
Cerebral compression, traumatic. C. H. Fagge 48
Localisation. A. H. Harkness 156
Change of address ... 3, 40, 47, 68, 86, 107, 123, 143, 179, 187, 209, 228, 257, 277, 292, 314, 331, 363, 368, 391, 421, 447, 476, 496, 511
Change of name. Dr. Carlill 24
Chapel Committee report 437
Chapple, H. Ectopic gestation, diagnosis and treatment 418
Children, the treatment of inguinal hernia in. P. Turner 397
Children's Tea 1, 339
Chilian Navy, vacancies in 474
Chisolm, R. A. Some recent advances in cancer research 113
Chorion epithelioma malignum. G. Maxted...258, 278
Christian Union, the 401, 475
Christmas festivities 1, 509
Cards 42, 491
Concerts 16, 509
Landon Christmas Tea 1, 491
O.P. Tea 1, 491, 509
Nurses' Entertainment 7, 509
Theatricals 14, 492, 509
Week, calendar of 1, 509

PAGE

Cirrhosis of the liver. Dr. Hale White ... 108
Clarke, K. B., and H. M. M. Woodward. Preliminary notes on a case of infection by the bacterium prodigiosum ... 369
Clarke, W. T., death of 101
Classes, Revision, notices 455

CLINICAL LECTURES—
Dr. H. C. Cameron—
The causes and varieties of infantile diarrhœa and vomiting 88
The treatment of some varieties of diarrhœa and vomiting in infants 129
Caseous mediastinal glands 355
Dr. Coley (New York)—
The treatment of cancer 7
Mr. C. H. Fagge—
Traumatic cerebral compression ... 48
Cancer of rectum and pelvic colon ... 252
Dr. H. French—
Muscular atrophy 422, 438, 456
Mr. E. C. Hughes—
Colles' Fracture 315
Fractures of the shaft of the radius 373
Mr. W. M. Mollison—
Acute otitis media 69
The complications of otitis media ... 188
Vertigo 335
Mr. Howard Mummery—
The distribution of nerves in the dental pulp, and in the dentine ... 497
Mr. A. W. Ormond—
Papillœdema and optic neuritis ... 293
The ocular changes found in Bright's disease 477
Dr. G. Newton Pitt—
Empyæma 168
The treatment of certain cases of œdema 523
Mr. R. P. Rowlands—
Congenital talipes 273
Mr. F. J. Steward—
Chronic appendicitis 210
Mr. J. H. Targett—
Pregnancy with fibroids 231
Mr. Ralph Thompson—
A case of traumatic stricture ... 149
Mr. P. Turner—
The treatment of inguinal hernia in children 397
Dr. W. Hale White—
The treatment of typhoid fever ... 29
Cirrhosis of the liver 108

CLUBS—
Athletic 243
Contemporaries' dinner 123
Debating 35, 126, 435

CLUBS (*continued*)— PAGE
'89 dinner 203
Goblins 123
Golf 284, 466
Hockey 448
Junior Guyite 225
Lawn Tennis ... ...
Nineties 123
Pavy Gymnasium 147
Rifle ... ...
Swimming 282
Students 95, 427, 445
Club, proposed, in connection with University of London 482
Clubs' Union 405
Coels, Mr., retirement of 123
Coley, Dr., clinical lecture, treatment of cancer 7
Colles' fracture 315
Colonial life for medical men, notes on. E. P. Minett 392
Concerts, Christmas 16
Congress, 29th German, internal medicine. E. P. Poulton 197
Conjoint Examination Board Pass Lists ... 47, 64, 167, 184, 321, 367, 465
Constructive anatomy 416
Consumption, treatment of 530
Contemporaries' Club dinner 123
Conversazione, Physical Society... 415
Cooper, Sir Astley, surgery in the time of ... 177

CORRESPONDENCE—
Act, the National Insurance ... 208, 227, 303
Appeal, a dental 118
Anatomy, constructive 436, 464
Ball, Guy's Hospital annual 372
Biennial Dinner, the 194, 207, 227, 249
Club, the Golf 334
Proposed University 482
Dental appeal, a 118
Dinner, the Biennial ... 194, 207, 227, 249
To Mr. Charters Symonds 251
Golf Club, the 334
Griffin, Dr. E. H. 437
Gull's Linctus 431, 437
Guy's Hospital Musical Society 393
Hancock (W. I.) Memorial 128
Heberden's Nodes 94
Hygiene, Out-Patient 482
Insurance Act 208, 227, 303
Interpretation, lessons of a failure in ... 426
Intestinal stasis and radiography... ... 94
Iodide of potassium 508, 531
Lessons of a failure in interpretation ... 426
Lesson, scientific, from the attempted assassination of ex-President Roosevelt 504
London Bridge and the Borough in 18th Century 314
Linctus, Sir Wm. Gull's 431, 437

CORRESPONDENCE (*continued*)— PAGE
Memorial to W. I. Hancock 128
Dr. Wade 531
Musical Society 37, 393
National Insurance Act 208, 227, 303
Notes concerning Heberden's nodes ... 94
Out-Patients' hygiene 482
Samaritan Fund 36
Perry, Sir Cooper 18
Proposed club, University of London ... 482
Radiography in intestinal stasis 94
Refractions in general practice ... 93, 117, 128
Rippmann, Dr., thanks from 481
Scandal of our hospitals, the 353
Silence! 94
Society and disease 236, 250
Suicides, treatment of 531
Summer diarrhœa 176
Symonds, Mr. Charters, dinner to ... 251
Testing urine for sugar and albumen ... 57
Urine testing for sugar and albumen ... 57
Vacancies for residents, Bermondsey Settlement 393
Waste of medical experience 481, 504
"Woman" 127
Women's rights 532
Cowley, Abraham 234

CRICKET—
Fixtures for 1912 220
Matches—
v. Bexley Asylun. 244
v. Bromley 283
v. Crofton Park 265
v. Croydon Mental Hospital 327
v. Forest Hill 284
v. Granville (Lee) 244, 264
v. Hampstead 220
v. Horton Asylum 263
v. Middlesex (final of inter-hospital) 328
v. Reigate Priory 220
v. St. Thomas's (semi-final Inter-hospital) 283
v. Sevenoaks 219
v. Surrey Club and Ground 284
v. The Mote (Maidstone) 263
v. University 264
Past v. Present 328
Cry answered, a 343

D.P.H. Conjoint 64
Dance, fancy dress 28
Guy's Hospital, statement of accounts ... 79
Davies-Colley, Miss, a lady F.R.C.S. 2
Death, on the importance of studying the signs of 362
Death of W. T. Clarke 101
of Mrs. Lucas 101
of Nurses Jagger and Spenceley 121
of Dr. J. Wade 346

PAGE

Deaths ... 40, 80, 100, 120, 140, 160, 180, 220, 284, 364, 448, 508, 536

DEBATING SOCIETY—
Debates—
"That co-education provides the only pathway to a proper mutual understanding of the sexes" 35
"That this House desires the abolition of the dramatic censorship 126
"That in the opinion of this House the surgeon is of more use to society than the physician ... 435
Ladies' Night 35
Debating Society, Nurses' 248, 505
Decoration from King of Italy 173
Dental appeal, a, by the Dean 118, 197
Caries, some factors in prevention. R. D. Tanner 25
Clinical lecture by Mr. Howard Mummery 497
Dinner 2, 53
News 64, 247
Society, papers read 25, 76, 135, 465, 518
Election of officers 247
Visit to Parke, Davis & Co. 417
Dentistry, the history of, by Guy Neely ... 76
Diagnosis, X-ray, of disorders of alimentary canal, by Dr. A. F. Hertz 105
Diarrhœa, summer, a further note on treatment of, by Dr. H. C. Corry Mann 267
Diarrhœa and vomiting, infantile, Dr. Cameron 88, 129
Dickens and Us 54
Dinners—
Biennial 22, 194, 227, 249
Contemporaries' Club 123
Dental 2, 53
Goblins 123
Guy's Hospital London University Club... 103
Oxford and Cambridge Club 22
Physiological Society 57
'89 203
Nineties 123
to Mr. Charters Symonds 251
Disease and society 237, 250
Disorders of alimentary canal and X-rays, by Dr. Hertz 105
Dispensary Reports, 1911 73
Distribution of prizes 288
Doctor, the 387
the Quack 367
Drink 364
Durham University Pass Lists 152, 302

Ectopic gestation, diagnosis and treatment of. H. Chapple 418
Eighteenth Century, London Bridge and Borough in ... 241, 251, 276, 299, 319, 332, 350, 381, 428, 442, 461, 483, 499, 528

PAGE

Eighty-nine club dinner 203
Embolism, pulmonary, two cases of, following injection of mercurial cream. C. Mills 219
Embolism, pulmonary, a case from the wards. C. Sherris 226
Empyæma, by Dr. G. Newton Pitt 168
Empyæma of maxillary sinus. Bayford Underwood 518
English triumph, an 491
Entertainments, Christmas 1
Nurses' 7
Swimming Club 282
Entrance examinations, R.A.M.C. 179
I.M.S. 465, 472
Examinations, results of—
Final Conjoint 47, 184, 367, 465
Second Conjoint 47, 167, 321, 465
First Conjoint 47, 167, 321, 465
Apothecaries, Society of 19, 184, 496
Cambridge University, Medical Degrees—
M.D. 24, 517
M.C. 517
M.B., B.C. 19, 223, 272, 359, 517
B.C. 47, 359
Durham University—
M.B. 152, 302
B.S. 302
London University—
Third exam. M.B., B.S. 223, 496
Second exam. M.B., B.S. ... 143, 321, 367
First exam. M.B., B.S. 19, 367
M.D. 19, 321
Oxford University—
M.B., B.Ch. 19, 302, 517
M.D. 472
Forensic Medicine and Public Hygiene ... 19
Royal College of Physicians, London—
M.R.C.P. 87, 185, 321
(See also "Conjoint")
Royal College of Surgeons, England—
F.R.C.S. 19, 264, 496, 517
D.P.H. 64
(See also "Conjoint")
L.D.S. Eng.—
Final 64, 139, 203, 472
First 203, 472
Prelim. Scientific 47, 167, 321, 465
Royal College of Surgeons, Edinburgh—
F.R.C.S. Edin. 302
London School of Tropical Medicine ...167, 359
R.A.M.C. 64
I.M.S. 465, 472
Prizes—
Gold Medals—
Golding-Bird 163, 290
Newland-Pedley 290
Treasurer's 290

Examinations, results of (*continued*)— PAGE
Beaney Prize 290
Junior Proficiency 163, 290
Michael Harris 163, 290
Hilton 290
First Year's Dental 290
Second Year's Dental 290
Wooldridge Memorial 163, 290
Examinations, Prize Programme 38
Examiners, London University 143
Exhibition, Nurses' Photographic 186

Fagge, C. H. Traumatic cerebral compression 48
Cancer of rectum and pelvic colon ... 252
Failure in interpretation, the lessons of a ... 426
Fancy dress dance 28
Farewell (to Mr. Symonds) 311
Fawcus, R. A. Paper, "Medicine and psychology 95
Festivities, Christmas 1
Fever, typhoid, the treatment of. Dr. Hale White 29
Fibroids in pregnancy. J. H. Targett... ... 231
Finnemore, H. Abstract of Dispensary and Pharmaceutical Report, 1911... ... 73
Fixtures, Cricket 220
Football 402

FOOTBALL—
Association Matches—
v. Bank of England 507
v. Bart.'s Hospital Cup, 1st Round ... 120
(2nd XI.) v. Croydon High School Old Boys (Surrey Junior Cup, 4th Round) 60
v. King's College (University Cup) ... 60
v. London County & Westminster Bank 60, 120
v. Old Cranleighans (Surrey Charity Cup semi-final) 120
(2nd XI.) v. Parthian Reserves (Surrey Junior Cup, 5th Round) 80
v. University College Hospital (Hospital Cup Semi-final) 120
University Cup 120
v. Wellingboro' Masters 507
(2nd XI.) v. Weybridge Reserves (Surrey Junior Cup final) 140
United Hospitals v. Corinthians ... 535
Rugby Matches—
v. Aldershot Command 466
v. Bart.'s (semi-final) 100
v. Bedford 534
v. Blackheath 40
v. Cambridge University... 467
v. Catford Bridge 432
v. Harlequins 506
v. London (Cup Tie final) 119
v. London Irish 505
v. London Scottish 59

FOOTBALL, Rugby Matches (*continued*)— PAGE
v. London Welsh 99, 506
v. Northampton 535
v. Old Leysians 99
v. Oxford University 59, 468
v. Richmond 534
v. Rosslyn Park 40
v. Streatham 468
v. U. C. S. Old Boys 447
v. United Services... 507
United Hospitals v. London 140
Fractures of shaft of radius. E. C. Hughes 373
F.R.C.S. 19, 264, 496
A lady fellow 2
French, Dr. H. A few therapeutic points ...195, 214
Muscular atrophy 422, 438, 456

Garrison, Dr. F. H., on Richard Bright abroad 371
Gazette's special pathologist ... 76, 119, 173, 233, 277, 372, 400, 430, 437, 474, 512
General practice, midwifery in... 475
Genito-urinary Department, a case from ... 301
German Congress of Medicine... 197
Gestation, ectopic, diagnosis and treatment of 418
Glaxo 131
Goblins and Contemporaries' Club 123
Golding-Bird medal 163
Golf, inter-hospital semi-final v. London ...507, 508
Physicians v. Surgeons 284
Society 466
Grocers' Company scholarships 139
Growth, some notes on. E. L. Kennaway ... 515
Guyite Club, Junior 225
Guy's Hospital, anæsthetics, report on ... 22
Athletic Club 243
Bacteriological and Vaccine Department Report, 1911 134
Ball 372
Chapel report 437
Choral Society 42, 95, 471
Christian Union 401, 475
Clubs' Union 405
Dance, 1911, accounts 79
Debating Society 35, 126, 435
Dental dinner 53
Society 465, 518
Dispensary report, 1911 73
Golf Club 466
Hockey 448, 488, 508
Ladies' Association 243
London University Club dinner 103
Musical Society 42, 95, 471, 532
Nurses' League 186
Photographic exhibition 186
Debating Society 248, 505
Pupils' Physical Society ... 95, 103, 322, 447, 465, 472, 488, 490, 513
Conversazione 415

Guy's Hospital (*continued*)— PAGE
Physiological Society 37, 427
Dinner 57
Papers 156
Report of Bacteriological and Vaccine Department for 1911 134
Rifle Club ... ...
Swimming Club 282
Guy's men, papers by ... 20, 26, 60, 74, 87, 107, 126, 147, 163, 187, 213, 243, 248, 277, 303, 307, 364, 368, 388, 421, 435, 466, 474, 505, 513
Gymnasium, the Pavy 147

Hail and Farewell 311
Hairpin in rectum 343
Hance, J. B. Success at R.A.M. Coll. exam. 472
Harkness, A. H. Cerebral localisation ... 156
Harris, Michael, prize 163, 290
Heatherley, F. Venesection for high blood-pressure 152
Hellenes, appointment of dentist to King of 366
Henley's Hospital poems 431
Hereditary syphilis, some notes on. Dr. H. Corry Mann 144
Hernia, inguinal, in children, treatment of. P. Turner 397
Hertz, Dr. A. F. Common fallacies in the X-ray diagnosis of disorders of the alimentary canal 105
Hockey season, 1912-13, annual general meeting 448
Matches—
v. Brockley 1st XI. 448
v. Hertford College, Oxford 508
v. Hounslow Garrison 536
v. King's College 508
v. St. Thomas's 488, 536
v. Spencer 535
Honours, Birthday 282
New Year 2, 19
By King of Italy 173
Hospital Poems, by Henley 431
Hughes, E. C. Colles' fracture... 315
Fracture of the shaft of the radius ... 373

Idioglossia in a child aged 5. Dr. H. C. Corry Mann 173
Illustrations—
1911, Retrospect 2
At the Prize Day 290
Charters Symonds 310
Mr. Guy renews his Youth... 400
Orthopædics in Arcadia 107
Prognosis 354
"Rip" 272
"Sawyer, late Nockemorf," sent for! ... 54
Transverse markings of the nails, a case from Dr. French's Out-Patients ... 476

Illustrations (*continued*)— PAGE
"Tussy" Tooth does the Hat Trick ... 263
Wm. Saunders 512
"With the Compliments" 510
Immediate torsion, a case of 430
Importance of studying the signs of death ... 362
I.M.S., another incident in the life of an I.M.S. man. Capt. F. A. Barker 521
Exam. for Commissions, results 465
More days in the. Cap. F. A. Barker ... 78
Prizes 472
Incubator, a new form of bacteriological ...421, 446
Infantile diarrhœa and vomiting. Dr. H. C. Cameron 88, 129
Insurance Act, the 181, 208, 227, 303
Interpretation, the lessons of a failure in ... 426
Intestinal stasis, pre- and post-operative nursing 75
Intravenous ether anæsthesia. E. G. Schlesinger 204
Italy, the King of, confers decorations ... 173

Jagger, Nurse F. Death of 121
Japan, a visit to Professor Kitasato 297
Joints, some points on structure of. T. B. Layton 3
Junior Guyite Club 225

Kennaway, E. L., M.D. Some notes on growth 515
King and Queen visit hospital 121
Kitasato, Professor, in Japan, a visit to ... 297

Ladies' Association, Guy's Hospital 243
Lady F.R.C.S., a (Miss Davies-Colley) ... 2
"Lamp Bearer, A" 175
Landon Out-Patients' Tea, the 339, 491
Lane, Mr. Arbuthnot, a tribute to 491
Laurence, Miss E. C. "A Lamp Bearer" ... 175
Lawn tennis, Inter-hospital Nurses' competition, final 384
Layton, T. B. Some points on the structure of joints 3
An unusual case of psoas abscess... ... 44
The anatomy of cervical ribs 153
Vienna and the Viennese 229
The vestibular nerve and cerebellum ... 376
Lazarus, a case from. G. T. Mullally ... 158
League, the Navy 486
League, Nurses', Past and Present 186
Lectures, clinical (see clinical lectures). for Sessions 1912-1913 404
L.D.S. Pass Lists 64, 139, 203, 472
Letter of Lilian, a 302
Library of London University. Rules for borrowing books 180
Library, the Wills. Books received 137, 287
The carpet 491
Lindley studentship, the 194
Lister, Lord 61
Liver, cirrhosis of the. By Dr. Hale White... 108

PAGE

London Bridge and the Borough in 18th century ... 241, 251, 276, 299, 319, 332, 350, 381, 428, 442, 461, 483, 499, 528
London Missionary Society. Dr. Ashton ... 475
London University Pass Lists ... 19, 223, 321, 367
Club 482
Examiners 143
Library. Rules for borrowing 180
Officers' Training Corps 393
Teachers 160
Lord Lister 61
Lucas, R. Clement. The late Professor A. H. Young 137
Mrs. Clement, death of 101

Mactreth. Critique 14
Mahon, E. M., and Ryffel, J. H. A case of pseudo-chylous ascites 27
Mann, Dr. H. C. C. A further note on treatment of summer diarrhœa 267
Idioglossia in a child aged 5 173
Some notes on hereditary syphilis ... 144
Marks of the nails, transverse 476
Marriages 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 264, 284, 304, 345, 364, 384, 403. 432, 448, 468, 488, 536
Maxillary sinus, empyema of. By Bayford Underwood 518
Maxted, Dr. G. Chorion epithelioma malignum 258, 278
Mayer, J. W. The diagnostic uses of the X-rays in dentistry 135
Medals, gold—
Golding-Bird 163, 290
Newland-Pedley 290
Treasurer's 290
Medical School notices 455
Medicine and psychology. By R. A. Fawcus 95
Men, Guy's, papers by ... 20, 26, 60, 74, 87, 107, 126, 147, 163, 187, 213, 243, 248, 277, 303, 307, 364, 388, 421, 435, 466, 474, 505, 513
Mercurial cream, pulmonary embolism following injection of. C. Mills... 219
Midwifery in a small general practice ... 475
Mills, C. H. Two cases of pulmonary embolism following injection of mercurial cream 219
Minett, E. P. Notes on Colonial life for medical men 392
Missionary Society. Address by Dr. Ashton ... 475
Mollison, W. M. Acute otitis media 69
Complications of otitis media 188
Vertigo 335
Montenegrins, with the 492
Mow-Fung, Miss, Cæsarean operation in Tientsin Hospital, China 480
Mullally, G. T. A case from Lazarus ... 159

PAGE

Mummery, Mr. Howard. The distribution of nerves in the dental pulp, and in the dentine 497
Muscular atrophy. By H. French, M.D. 422, 438, 456
Musical Society 42, 95, 471, 532

Nails, transverse markings of 476
Name, change of. Dr. Carlill 24
Navy, the Chilian, vacancies in... 474
Navy League, the 486
Neely, Guy. The History of dentistry ... 76
Nerves in dental pulp and dentine. H. Mummery 497
Neurasthenia, cause and treatment of certain cases of. By F. Brook 452
Newland-Pedley gold medal 290
News, dental 64, 247
Nursing 34, 186, 401, 445
Nineties Club, the 123
Nitrous oxide and oxygen in conservative dentistry. By Douglas Wain 389
Notes on two uncommon diseases. By E. P. Poulton 224
Notes on Colonial life for medical men. By E. P. Minett 392
Notices ... 77, 95, 104, 139, 180, 194, 304, 455
Nurses, deaths of two 121
Nurses' Debating Society 248, 505
Entertainment 17
Inter-hospital lawn tennis competition ... 384
League, Past and Present 186
Photographic exhibition 186
Nursing of intestinal stasis 75
Nursing News 34, 186, 401, 445
Nystagmus. By T. B. Layton 376

Obituary. W. T. Clarke 101
Mrs. Lucas 101
Dr. John Wade 345
Ocular changes found in Bright's disease ... 476
Odontological section Royal Society of Medicine (grants for research) 451
Œdema, the treatment of certain cases of. By Dr. Newton Pitt 523
Officers' Training Corps 393
Ogilvie, Mr. W. H. "With the Montenegrins" 492
Operation, Cæsarean, in Tientsin. Miss Mow-Fung 480
Optic neuritis and papillœdema. A. W. Ormond 293
O.P.O. 162
Ormond, Mr. A. W. Papillœdema and optic neuritis 293
The ocular changes found in Bright's disease 476
Otitis media, acute. By W. M. Mollison ... 69
The complications of. W. M. Mollison ... 188
Oxford University Pass List 19, 302

PAGE

Papers by Guy's men ... 20, 26, 60, 74, 87, 107, 126, 147, 163, 187, 213, 243, 248, 277, 303, 307, 364, 368, 388, 421, 435, 466, 474, 505, 513

Papers read by—
Guy Neely 76
R. A. Fawcus 95
R. A. Chisolm 113
J. W. Mayer 135
A. H. Harkness 156
J. A. Ryle 322, 340

Papillœdema and optic neuritis. A. W. Ormond 293
Park, the artist in the 444
Pass Lists—see Examination results.
Passim, 1, 21, 41, 61, 81, 101, 121, 141, 161, 181, 201, 221, 245, 265, 285, 305, 329, 345, 365, 385, 413, 433, 449, 469, 489, 510
Pathologist, the Gazette's Special ... 76, 119, 173, 233, 277, 372, 400, 430, 437, 474
Patients' point of view, the 148
Pavy Gymnasium, the 147
Peritoneal wounds, the treatment of. By Professor E. Bumm 84
Photographic Exhibition, the Nurses'... ... 186
Physical Society, Pupils' ... 95, 103, 322, 447, 465, 472, 488, 490, 513
Conversazione 415
Physicians, Royal College of 19, 87, 185, 321
Physiological Society 37, 427
Dinner 57
Papers 156
Physiology on the stage 184
Pictures 491
Pills, Page Woodcock's 225
Pitt, Dr. Newton. Empyema 168
The treatment of certain cases of œdema... 523
Plasticine 416
Pneumonia aborted by aspirin. Dr. A. Scott 502
Poems, Henley's Hospital 431
POETRY—
"Drink" 364
"Easter celebrations" 148
"R. I. P." 107
"The surgery: as it might be, an it would 178
"To Phœbe" 147
"Wail of a district" 136
Portraits. Charters Symonds 310
Wm. Saunders 512
Poulton, E. P. 29th German Congress on Medicine 197
Notes on two uncommon diseases... ... 224
Practice, midwifery in small general... ... 475
Pregnancy with fibroids. J. H. Targett ... 231
Prize examinations, programme of 38
Treasurer's 103
Prizes and scholarships 163
Distribution of 288
Proficiency, Junior, prize... 163

PAGE

Psoas abscess, an unusual case. T. B. Layton 44
Pulmonary embolism and mercurial cream. C. H. Mills 219
Pupils' Physical Society ... 95, 103, 322, 447, 465, 472, 488, 490, 513
Conversazione 415

Quack doctor, the 367

Radius, fracture of shaft of. E. C. Hughes 373
Rectum, Cancer of 252
Hair-pin in 343
Report Chapel Committee 437
Report, Dispensary, for 1911 73
Residents' Theatricals 14, 492
Retroflexion of uterus, a case of 417
Return of Bacteriological and Vaccine Department, 1911 134
Revision Classes 194, 455
REVIEWS—
Beard, J., D.Sc. The enzyme treatment of cancer 65
British Pharmacopœia Codex, 1911 ... 58
Candy, H. C. H. A manual of physics ... 20
Cheyne and Burghard. Manual of surgical treatment 263
Choyce and Beattie. A system of surgery, vol. i. 37
Codex, B. P., 1911 58
Coleman and Hilliard. Anæsthetics in dental surgery 283
Cook, J. Basil. An index of practical nursing 262
Corbyn and Stewart. A handbook of physics and chemistry 20
Denslow, L. N. A surgical treatment of locomotor ataxy 160
Dixon, F. Manual of human osteology ... 362
Fremantle, F. E. Health and Empire ... 80
French, H., M.D. An index of differential diagnosis 233
Goodall, A. Aids to histology 99
Harman, B. Aids to Ophthalmology ... 99
Hill, Wm. Gastroscopy and œsophagogastroscopy 180
Keith, Arthur. Ancient types of man ... 179
Laurence, Miss E. C. A lamp bearer ... 175
Lückes, Eva. Hospital sisters and their duties 487
Lyle, H. W. A manual of physiology ... 261
McKissick, H. L. A dictionary of medical diagnosis 98
Moon, R. O. The progress and treatment of diseases of the heart 487
Oxford, Miss M. N. A handbook of nursing 402
Paget, Stephen. For and against experiments on animals 402

REVIEWS (*continued*)— PAGE
Parsons, J. H. Diseases of the eye ... 283
Parsons and Wright. Practical anatomy... 119
Pedley, R. D., and Harrison. Our teeth 180
Pickerill, H. P. The prevention of dental caries 200
Stomatology in general practice ... 363
Pirean, Mabel M. Massage manual ... 505
Pollock and Harrison. Gonococcal infection 179
Sahli, Herman. Sahli's tuberculin treatment 402
Sawyer, Sir James. Insomnia, its causes and treatment 487
Schmieden, V. The course of operative surgery, 4th edition 488
Shennan, T. Post-mortems and morbid anatomy 402
Stark, A. Campbell. Aids to practical pharmacy 99
Stephenson, S. Ophthalmic nursing ... 534
Stoddart, W. H. B. Mind and its disorders, 2nd edition 488
Tidswell, W. The tobacco habit 37
Tubby, A. H. Deformities... 138
Vincent, S. Internal secretion and the ductless glands 362
Waring's Manual of operative surgery, 4th edition 488
White, W. Hale. Materia medica ... 99
Whittaker, C. R. Essentials of surface anatomy 138
Witkowski. Tightening of loose teeth ... 180
Ribs, the anatomy of the cervical. T. B. Layton 153
Rickets, a paper by J. A. Ryle... ... ...322, 340
"R. I. P." 107
Rippmann, C. H., dinner to 471
Rochester. By H. B. Carlill 238
Rowlands, R. P. Is it wise to remove the appendix when there is a localised abscess? 164
Congenital talipes 273
Chronic appendicitis (appendix dyspepsia) simulating gastric, duodenal, or gall bladder disease 359
Royal Army Medical Corps, entrance exams.... 179
Royal College of Physicians, Pass List 19, 87, 321
Royal College of Surgeons, Edinburgh, Pass List 302
Royal College of Surgeons, England, Pass List 19, 47, 64, 139, 167, 264, 321, 465, 472
Royal Society of Medicine, Grants regulations 451
Ryffel, J. H., and Mahon, E. M. A case of pseudo-chylous ascites 27

Saner, F. D. R.S.O. 82
Saunders, Wm., M.D., with portrait 512
Savage, Dr. Geo. Knighthood conferred ... 2, 19
Schlesinger, E. G. Intravenous ether anæsthesia 204

PAGE
School, Medical, appointments 18
Sciences, the 407
Scott, E. D. A case of left-sided subphrenic abscess due to an empyema of the gall bladder 312
Scott, A. Can aspirin cause pneumonia to abort? 522
Sheldon, Miss F. A. A cry answered ... 343
Sherris, C. A case of pulmonary embolism from the wards 226
Shooting competition 432
Skin Department, further statistics 58
Society of Apothecaries, Pass List ... 19, 184, 496
Dental, papers read 25, 76, 135, 465, 518
Visit to Parke, Davis & Co. 417
Debating, Ladies' Night 35, 126, 435
Nurses' 248
Musical 42, 95, 471, 532
Physiological 37, 57, 156, 427
Physical ... 95, 103, 322, 447, 465 472, 488, 490, 513
Conversazione 415
Society and disease. By H. W. B. 237, 250
Specialities, Karlsbad salt 133
Dry Diamalt 133
Caird hypodermic tank 304
Spenceley, Nurse E., death of 121
Sports, athletic 243
"Squib, a Students'," of 1823 394
Stage, physiology on the... 184
Stasis, intestinal, the nursing of 75
Steward, F. J. Chronic appendicitis 210
Stricture, traumatic. Ralph Thompson ... 149
Students' Calendar 38
Club 95, 427
Squib, of 1823 394
Gazette 385
Studentships, Lindley, the 194
University, Physiology 194
Subphrenic abscess, left-sided 312
Subscriptions to dental appeal 118, 197
Suffrage, Women's 505
Suicide, care of attempted 531
(see also Passim, 489)
Summer diarrhœa. Dr. H. C. C. Mann ... 267
Surgeons, Royal College of ... 19, 47, 64, 139, 167, 264, 321, 465, 472
Surgery in time of Astley Cooper. By Dr. C. Warren 177
Surgery, the, "as it might be, an it would"... 178
Symonds, Charters J., dinner to 251
Last round, notes of cases 308
Hail and farewell 311
Portrait of 310
Syphilis, hereditary, some notes on. H. C. C. Mann 144

PAGE

Talipes, congenital. By R. P. Rowlands ... 273
Tanner, R. D. Paper on some factors in the prevention of dental caries 25
Targett, J. H. Pregnancy with fibroids ... 231
Cæsarean operation in Tientsin 480
Tea, Children's Out-Patients' 1
O.P., the "Landon" 339, 491
Teachers recognition of (University of London) 160
Tennis, lawn, Nurses' Inter-hospital competition 384
Tetanus, a case of 473
Theatricals, the Residents' 14
Therapeutic points, a few. Dr. H. French ...195, 214
Thompson, Ralph. A case of traumatic stricture 149
Thomson's disease (myotonia congenita). E. P. Poulton 224
Torsion, a case of immediate 430
Transverse markings of the nails 476
Traumatic cerebral compression. C. H. Fagge 48
Stricture. R. Thompson 149
Trethowan, W. H. Orthopædic surgeon ... 43
Trichiniasis. E. P. Poulton 224
Triumph, an English 491
Tropical medicine, London School of, Pass List 167
Turner, Philip. The treatment of inguinal hernia in children 397
Typhoid fever, treatment of. W. Hale White 29

Underwood, Mr. Bayford. Some dental aspects of empyema of the maxillary sinus ... 518
Union, the Christian 401, 475
University of Cambridge Pass List ... 19, 24, 47, 223, 272, 359, 517
Durham 152, 302
London 19, 143, 160, 194, 223, 321, 367, 496
Oxford 19, 302, 472, 517
University of London O. T. C.... 393
Proposed Club 482
Uterus, a case of retroflexion of 417

PAGE

Vaccine Department, Return of, 1911 ... 134
Venesection for high blood pressure 152
Vertigo. W. M. Mollison 335
Vestibular nerve and cerebellum. T. B. Layton 376
Vienna and the Viennese. T. B. Layton ... 229
Visit of King and Queen... 121
Vivisection, Royal Commission on 180

Wade, John, D.Sc. An appreciation ... 348
Obituary 345
Wain, Douglas. Nitrous oxide and oxygen in conservative dentistry 389
Walker, A. W., L.D.S. Appointed dentist to King of Hellenes 366
Warren, Dr. J. Collins. Surgery in the time of Astley Cooper 177
White, Dr. W. Hale. Clinical lecture on the treatment of typhoid fever 29
Cirrhosis of the liver 108
Wills Library, carpet in the 491
List of books added to the 137, 287
Women's Suffrage 505
Woodcock's wind pills 225
Woodward, H. M. M., and K. B. Clarke. Preliminary notes on a case of infection by bacterium prodigiosum 369
Wooldridge Memorial Prize 163
Wounds, peritoneal, treatment of. Professor Bumm 84

X-ray diagnosis of disorders of alimentary canal. By Dr. A. F. Hertz... ... 105
X-ray diagnosis in dentistry. J. W. Mayer... 135

Young, Professor A. H. By R. Clement Lucas 137

1911.—Retrospect.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 614.] JANUARY 6, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	1–3
Change of Address	3
Some Points on the Structure of Joints. By T. B. Layton, M.S.	3–6
The Treatment of Cancer. Clinical Lecture by Dr. Coley of New York	7–14
The Residents' Theatricals	14–16
Astley Cooper Concert	16–17
The Nurses' Entertainment	17
Correspondence	18
Appointments	18–19
Pass List	19
Reviews, etc.	20
Papers by Guy's Men	20

Passim.

ONCE more "Richard is himself again," and the Hospital has put off its Christmas greenery and returned to the humdrum routine of Out-Patients, operations, lectures, and the like. Christmas has been, as ever, a welcome break in the monotony of existence, and though for many it has meant as much, if not more, work than usual, yet it has been invigorating labour and genuine recreation. There can be no doubt that the patients enjoy Christmas, and the predominant note throughout the week has been thoughtfulness for their comfort and happiness. It is sometimes said that the festivities are too numerous and prolonged, taxing too severely the strength of those ill in the wards and possibly hindering their recovery. There is truth in this, but the greater and more enduring truth lies in the efforts made to make Christmas memorable for each individual patient and in the general spirit of fellowship and good will which prevails.

COMMENT on the success of the Children's Out-Patient Tea would be superfluous. The event must be seen to be realised, and the eagerness with which the Borough children scheme by various and often devious ways to secure an invitation to it is ample evidence of its popularity in the neighbourhood. Early in November a small child came up to the Surgery with a look of fixed determination on her face. When asked what was the matter with her, she bravely screwed up her courage and replied, "Please, I want to have a tooth out," then, after a pause, wistfully added, "but I'd *rather* have a ticket for the Christmas Tree!" If self-mutilation was the only path leading to the feast then would she tread it bravely, but —! Such heroism is clear proof of the eager anticipation with which the ragged children at our doors regard our efforts on their behalf.

THE other Christmas festivities are adequately reported elsewhere. Here we need only allude to their entire success, and congratulate those concerned on their efforts. Certain accounts, however, yet remain for settlement, and we are asked to point out that in the exuberance of preparation for the bonfire, stools and tables from the Dissecting Room to the value of £4 or £5 were added as fuel to the flames. There can surely be no doubt that the mention of this fact will evoke the apropriate response, and that those who had their share in calling the tune will not shirk paying the piper. It would be grossly unfair, and a lamentable ending to Christmas week, if the cost of this destruction of property were allowed to fall on but a few out of the many concerned, and we are sure that a subscription list will promptly be organised to defray the damage. Contributions should be paid to the President of the Residents.

To attempt to survey the past year in regard to the Hospital and the medical world in general

would be, perhaps, as futile a task as prophecy regarding the future. The New Year will, however, be one of stress and strain for our profession. Controversy is acute regarding the problems laid before us by the new Insurance Act, and as yet there is more sound than sense, haphazard charges than reasoned strategy. So far it may be outwardly imposing, but it is not war. No one can foretell what changes the next six months may bring in the bearing of the Act on the profession, but whatever befall it is most earnestly to be hoped that we shall not allow ourselves to be exploited by any political party. The obvious and easy path is not usually the safest.

WE hear that Dr. Cameron is initiating radical reforms in the dieting of infants, commencing in Clinical, and with the expectation of extending the scheme gradually throughout the Hospital. Babies are now to be treated on a definitely scientific basis. No longer will the "feeds" be liable to be left indeterminate in quantity and composition, and no longer will the same person both clean the baby and prepare its bottle. Undoubtedly such a change is greatly to be desired, and from the point of view of the resident staff there will be much gained from the necessity carefully to think out and prescribe the dietary for each child. The temptation to leave such details to Sister is great, and it is to be hoped that by the time we are next visited with the annual epidemic of infantile diarrhœa our methods of combatting it will be more efficient and practical than ever before.

THE Royal College of Surgeons is now able to boast of a lady Fellow and it is of special interest to Guy's men that the first lady to attain the distinction of F.R.C.S. bears a name closely associated with the Hospital. Miss Davies-Colley is the daughter of Davies-Colley the famous Guy's surgeon, whilst her grandfather was Mr. Turner, formerly Treasurer of the Hospital. She has two brothers who are also F.R.C.S., so that they form a distinguished trio for surgical ability. We should like to offer Miss Davies-Colley our sincere congratulations, and further, congratulate the Royal College of Surgeons on its first lady Fellow.

THE New Year Honours contain the name of Dr. G. H. Savage, who receives a Knighthood. The Hospital has good reason to be proud of the distinction awarded to so well-known and able a member of its Consulting Staff, and we would offer our hearty congratulations to the new Knight.

THE Debating Society will hold their "Ladies' Night" discussion on Saturday, January 13th, the subject for debate being "That Co-education provides the only pathway to a proper mutual understanding of the sexes." It is expected that, as last year, many visitors from the Royal Free Hospital will be present and there should certainly be an animated discussion. It is difficult to understand the reluctance with which men can be induced to take part in the debates. Lack of interest is not entirely the cause but rather an abnormal degree of self-consciousness. Public speaking is an art which can only be acquired by practice but, once attained, it is a life-long and valuable possession. A frequent complaint amongst middle-aged men is their regret at not being able to speak well in public, and this regret might have been spared them had they cultivated the art in their youth. The moral is obvious, more especially at the present time when it is most necessary for individual doctors to be able to speak with fluency and conviction. The poor speaker, however well-informed he may be, is often at the mercy of one who has simply the gift of the gab, and this fact, though of little practical importance in the Hospital, often forms a serious disability to men in after-life. An opportunity for acquiring the faculty of public speaking is offered by our Debating Society and it is one which should not be neglected.

WE are asked to repeat the announcement made in our last issue of the Seventeenth Annual Dinner of the Guy's Hospital Dental Society. It will take place on January 20th, at the Trocadero Restaurant, and the price of tickets

will be 7s. 6d., to be obtained from the Hon. Sec., W. S. Stranack. As it is desired to arrange the tables in the most pleasant manner, intending diners are asked to inform the Hon. Sec. as to whom they wish to sit next to at the dinner.

We understand that the Residents' Christmas play "Mactreth" is shortly to be published in book form. This should form an interesting souvenir of the performances. It will be published at half-a-crown. As only a limited number of copies will be printed, intending subscribers would do well to send a post card addressed to the Editor of the Gazette, stating the number of copies they are likely to require.

In our correspondence column will be found a letter referring to the gift of £1,000 which was announced in our issue of December 9th. Widespread interest has, as was inevitable, been aroused, and many communications have been received which testify to the chorus of approval with which the generosity of the donation has been received. Pressure on space made it impossible to refer to this subject in our last issue, but the letter which is now published is typical of the interest which has been generally felt and expressed.

Change of Address.

C. H. Bradnam, L.D.S., from 29, Church Road, Tunbridge Wells, to "Camber," 5, Eversley Road, Bexhill-on-Sea.

J. Elford Dupigny, M.R.C.S., L.R.C.P., L.D.S., from Roseau, Dominica, W.I., to 130, Earl's Court Road, S.W.

F. E. Hutchinson, M.R.C.S., L.R.C.P., from Swanston Street, Melbourne, to Echuca, Victoria, Australia.

R. Thompson, Ch.M., F.R.C.S., from 30, Weymouth Street, to 49, Wimpole Street.

E. B. Hinde, M.B., B.C., F.R,C.S. Eng., from c/o 69, Thorpe Road, to 7, Magdalen Road, Norwich.

E. MacDonald Judge, to Shandon House, Balmoral Road, Gillingham, Kent.

A. V. Ledger, from West Ham General Hospital to "Avonwick," Babbacombe, Torquay, S. Devon.

W. S. Lakeman, L.D.S., from Guy's Hospital to 50, St. Andrew's, Uxbridge.

Note—With reference to the change of address of W. Evershed Wallis, notified in Gazette of 23rd ult., the change was inserted in error.

Some Points on the Structure of Joints.

An Advanced Anatomy Class.

By T. B. Layton, M.S.

The functions of joints are three: to allow movement between the bones forming it; to transmit pressure from one bone to the other in any position of the joint; and to lessen the force whereby that pressure is transmitted across the joint, and, therefore, to the structures near or within the further bone.

But any particular joint does not necessarily subserve all these functions; in order to do one more efficiently the joint may be entirely without its power of doing the others, and differentiation of function can be well studied in them.

In a large number of joints there is no movement between the bones forming them, and they subserve the second and third of the above functions only. These joints are called synarthroses, and as they are joined by fibrous tissue or cartilage, they are known as syndesmosis or synchondrosis accordingly. Sometimes these tissues become ossified, when the condition is known as a synostosis, and the two bones become one. This process is seen in the development of the skull bones from their various constituent parts culminating in the fusion of the occipital with the sphenoid bone; again, in the ossification of the first costal cartilage, which nearly always occurs in later life. Indeed, the fusion of every epiphysis with its diaphysis is really an example of the conversion of a synchondrosis into a synostosis.

The syndesmoses vary greatly in the amount of the fibrous tissue between the two bones from the thin membrane between the skull bones to the thick pieces of fibro-cartilage between the vertebræ or the various parts of the pelvis. The mere thickness of the interosseous substance allows a certain amount of give in these latter, and they are therefore classed as amphiarthroses, or partially movable joints, but the distinction is, I think, an invidious one.

In the joints so far considered there is an actual continuity of tissue from one bone to the next through the interosseous substance. The result is that any point of one bone can never appreciably alter its relation to the corresponding point on the other bone. In the remaining class of joints such alteration does occur, be-

cause there is contiguity of the bones only, but no continuity of substance. These are the diarthrodial or movable joints, and are the ones I would chiefly consider to-day. They, again, show very considerable variations in function, and are, therefore, instructive. In some the amount of movement possible is very small, and their chief function is to diminish the force of the impact received, as in the joints between the tarsal and carpal bones. In others, again, a wide range of movement is possible, but in these the pressure is transmitted directly across the joint without much lessening of its force.

All joints must subserve the function of transmitting pressure from the one bone to the next. If this does not happen, the force is expended by breaking the bone, or the pressure is transmitted to the soft tissues around the joint, with the result that they tear, and the surfaces of the bones lose their relations one to another; that is, the joint is dislocated. As a general rule we may say that in those joints in which there is freest movement, the function of transmitting pressure from one bone to the next in all positions is lessened in order to permit of that free movement, and therefore the freer the movement in any joint the greater is its liability to dislocation.

Considering their structure, the surfaces of the diarthrodial joints may be directly contiguous one with another, or they may be separated one from another by a complete or incomplete piece of fibro-cartilage. The fibro-cartilage in these cases is, however, only interarticular, not interosseous, as in the case of the syndesmoses.

So great is the difference in function and in structure of the various joints that you may wonder that the same term is used to describe the inter-parietal suture, on the one hand, and the knee-joint, on the other, and at first sight one is inclined to limit the term joint to the latter, and use some term, such as junction, for the former. If, however, their development is studied, the essential similarity of all the joints is seen. You will remember that when we discussed the development of the long bones, we said that they first appear as an outline of their ultimate shape laid down in cartilage among the undifferentiated mesoblast of the limb. Between two contiguous bones this mesoblast is the precursor (blastema) of all the structures within the joint, whether synovial membrane, fibro-cartilage, or ligaments; the same tissue forms the perichondrium, which becomes the periosteum, and this is continuous from one bone to the next as the capsular ligament.

You will remember that the paraxial mesoblast of each primitive segment divides into a myotome and sclerotome, and that the former retains its segmental arrangement, while the latter loses it. From certain of these myotomes processes grow out into the limb, buds between the skin and the bones and joints, to form the muscles of the limb.

This similarity between the synarthroses and diarthroses is further proved by the changes that may occur in the former under certain conditions. If it be of advantage to the economical working of the body, a diarthrodial joint may dêvelop where a synarthrosis usually exists. This is well known in the case of the sacro-iliac syndesmosis, which is said to acquire a considerable amount of movement in the case of women who have frequently undergone labour, and Mr. Lane* showed that a diarthrodial joint may occur in the lumbar region of the coal-trimmer who is constantly rotating his spinal column.

Diarthrodial joints,† again, have been found between the upper part of the ilium and the second and third pieces of the sacrum, where usually the two bones are merely joined by ligaments, and in this case the human body is seen to revert to a condition which is constant in pronograde animals.

But to return to the diarthrodial joints. If the bones be merely contiguous, and not continuous, let us think of the factors holding them in place which prevent the articular surfaces from being pulled apart.

The three forces which must be considered are —the passive resistance of ligaments; the active contraction of muscles; and atmospheric pressure. The degree of importance of each of these three vāries considerably in the different joints.

1. The ligaments of a diarthrodial joint are of two kinds:—

a. Those developed from the undifferentiated mesoblast of the limb as indicated above. These form a capsule around the joint, and are attached along the junction of cartilage and periosteum on either bone. Parts of this capsule

*Journ. of Anat. and Phys., vol. xxi., p. 385.

†Derry. Journ. of Anat. and Phys., vol. xlv., p. 202.

may become specially thickened in order to resist strain in some particular direction; examples of such thickenings are the fasciculi of the external lateral ligament of the ankle, or the pubo-femoral band of the capsule of the hip.

b. Those developed from muscles. They may be formed by the conversion of a whole or part of the muscle into ligament. As an example of a whole muscle, we have the outer part of the ilio-femoral band which represents the scansorius muscles of lower animals. When a part of a muscle becomes a ligament, it is known as a divorced tendon, and is formed by the muscle in question deriving a new attachment on the proximal side of a joint which it formerly crossed. A good example of these is the internal lateral ligament of the knee, which is the divorced tendon of the hamstring portion of the adductor magnus, and a knowledge of this point completes the correlation of origin, insertion, and nerve supply of this muscle with the other hamstrings.

Another example is the great sacro-sciatic ligament, which is derived from the biceps cruris muscle. There is a pelvis in which the muscle and ligament are continuous with one another with a sesamoid bone over the tuber-ischii. This was dissected out by the student demonstrator in 1900, and is referred to in Mr. Bland-Sutton's book on ligaments. From the pectoralis minor is derived the coraco-humeral ligament of the shoulder, and in the room last term was a body in which this muscle could be traced on either side over the coracoid process and under the coraco-acromial ligament to the head of the humerus.

From their development, it will be recognised that ligaments such as these, though they be blended with the capsule, should lie external to the fibres of the capsule proper. This is usually, but not invariably, the case. We see in the shoulder and knee-joints the biceps and popliteus tendons piercing the capsule and gaining the interior of the joint, and certain intracapsular ligaments are believed to be derived from tendons just as the extracapsular ligaments may be. The ligamentum teres in this way is said to be derived from the pectineus, and the crucial ligaments of the knee from some undetermined muscle. An intermediate stage of this relation of tendon to joint-capsule is seen in those cases where prolongations from some ligament form a sheath for a tendon to pass through. If the internal lateral ligament of the ankle be carefully dissected, its superficial fibres are seen to form such a sheath for the flexor longus hallucis tendon, where this is passing between the groove on the atragalus and the under surface of the sustentaculum tali.

2. The function of shortening, and thereby loosening, the joints is not the only one which the muscles possess. They are also important in keeping the joint surfaces in position, and thereby act as ligaments. The degree to which this occurs varies greatly in the different joints. If all the muscular tissues around the hip be divided, the bony surfaces still remain in contact, but if the same be done in the case of the shoulder-joint, the head of the humerus at once falls away from the glenoid cavity for the space of an inch. In this joint, then, it is the muscles inserted into the capsule and not the capsule itself which keep the bones in position. Freedom of movement is obtained by the looseness of the capsule, and the resulting loss of strength is compensated by this ligamentous action of the muscles. In other cases some expansion from a muscle blends with and strengthens the capsule, as we see in the insertion of the quadroceps extensor cruris; or such an expansion forms the whole of some part of the capsule, as is seen in the relation of the extensor tendons to the interphalangeal joints.

A third way in which the muscles serve as ligaments to a joint is by securing lateral stability. This may be obtained in two ways. A group of muscles may arise from the bony surfaces on either side of the joint and from the ligaments of the joint, as in the case of the elbow, and by this relation steady the joint during their contraction. Or the same purpose may be attained by the tendons of the muscles being bound down to the bone by annular ligaments or sheaths as they cross the joint. Thus, when a fist is made the wrist is rendered stable by the close relation of the extensor tendons to the lower end of the radius; and the passage of the peroneus longus across the sole of the foot is another example of this point.

3. The importance of atmospheric pressure is very difficult to estimate. The cavity of each joint is only a potential one in ordinary circumstances, until it be distended by fluid under some pathological condition, and it is possible that the atmosphere may have some effect in keeping the surfaces together in all joints. That it is so in the hip is seen by the

fact that when every structure around them has been divided, the bones retain their position, and it is not until the head is levered out of the acetabulum that they can come apart. When this occurs, the air rushes in with a characteristic sound. In other joints this experiment cannot be done, for when the capsule is opened the air goes in between the bones, and we can only argue by analogy. The cracking of a metacarpo-phalangeal joint is an experiment which points to the same influence. When the joint surfaces are pulled apart a noise is heard, and the soft tissues are driven in around the joint. The function of the ligamenta alcina and mucosum in the knee-joint are connected with this point. The fit in between the two bones in all positions of the joint acting as a pad and varying in shape as the joint moves, when the limb is extended the tissues form a slight prominence on either side of the ligamentum patellæ, but when fully flexed they are driven in by the atmospheric pressure to fill in the increased space between the knee bones, and a depression is seen where there was formerly a prominence.

So far we have only considered the variation in structure of different joints. I would now say a few words on variation of the structure of the same joint under different conditions. I have, indeed, touched on this point when I referred to Mr. Lane's work on the coal-trimmer. A given joint may alter in structure, even after adult life, either in the direction of freedom of movement or of limitation of movement if the mechanical necessities of the individual greatly need it. These changes occur after continually doing the same movement over an extended period of time, and they result in an economy of muscular action, and therefore of expenditure of energy to the individual. He, of course, would lose in other ways, supposing he ever wanted to do other work. But for his own special work each acquires an exaggeration of the movement he most needs. The whole question is most complicated, as it is intimately associated with laws of growth and deposition of osseus tissue about which we practically know nothing. In it, also, we are beginning to pass from the bounds of the physiological into the pathological. I will, however, give you two examples. In a man who is repeatedly extending or flexing the elbow and ending this movement suddenly, osseus tissue is laid down in the coronoid and olecranon fossæ of the humerus, so that these two processes more early come in contact with that bone. In this way the muscular energy of the extensors and flexors is greatly saved, but the joint loses considerably in range of movement. If you keep your eyes open in the wards and Out-Patients you will come across examples of this condition; the best one I ever saw was in a bootmaker. The coal-trimmer is continually throwing coal over his shoulder and behind his back. By acquiring the increased mobility of a diarthrodial joint in his lumbar region he can turn round much further without moving his feet, and therefore he again saves his muscles and the energy stored up in them.

Another important point to remember is that joints may vary widely in different individuals. This variation may be a sexual characteristic. The hips and knees vary with the width of the pelvis, and therefore in a woman the hip joints are set wide apart, the knees are somewhat knock-kneed, and she walks with a graceful swaying motion which some irreverently call a waddle.

In other cases this variation is merely an idiosynerasy, an example of those small differences in structure upon which Darwin built his theory of natural selection. Look at the knees of as many people as you can from the outside when the body is erect; you will find that in some the natural position is one of slight flexion, in others the thigh and legs are in a line with one another, but in others, again, there is a slight genu recurvatum. All these must be considered normal, though the last is at some mechanical disadvantage. The elbow shows another excellent example of this variation. The line which the forearm makes with the upper arm is known as the carrying angle. It is never quite straight, but the amount which it deviates out from this line varies very considerably in different individuals. Purely as a lever the forearm would be at the best mechanical advantage if it were in a line with the arm. A small deviation is of advantage to us in carrying things; when this deviation exceeds a small amount it does not compensate the loss of mechanical advantage.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

The Treatment of Cancer.

CLINICAL LECTURE BY DR. COLEY, OF NEW YORK.

SIR ALFRED FRIPP, in introducing the Lecturer to the audience, said it was a most fortunate coincidence that, in the midst of a short series of lectures on tumours, there should be in this country one of the greatest authorities of this or any time upon the investigation and treatment of malignant disease. Dr. Coley had come, at some expense and inconvenience, and he was sure all were very much obliged to him. The Royal Society of Medicine had not been able to secure his services, as Guy's offered him greater attractions. Dr. Coley had published very widely, and investigated more widely still. One little series was of 3,000 cases operated upon for rupture! He mentioned those points so that no one present should run away with the impression that they were being talked to by a "cancer specialist," but by one whose vision was of that wider range, and who was endeavouring to treat one of the "ungetatable" conditions. The treatment known throughout the world as "Coley's fluid" was not intended by him to be used as a substitute for operation, but to be employed chiefly, if not entirely, as an aid to operation, particularly in those cases in which operation had proved, or threatened to prove, useless; in fact, in the inoperable cases.

GENTLEMEN,—After the very flattering remarks which have been made by Sir Alfred Fripp, I feel you will be disappointed at the very simple talk I shall give you on the treatment of inoperable sarcoma. I shall start off with the assumption that we know nothing about the treatment of inoperable sarcoma. The majority of you have, perhaps, read very little about it, and so, at the expense of boring the members of the Faculty, I shall try to put the matter in as simple language as I can.

First, as to the historical part. I will put that in very few words. For many years prior to the discovery of the germ of erysipelas, cases had occurred, and a considerable number had been recorded, of entire disappearance of various types of malignant tumours during an attack of intercurrent accidental erysipelas. There were 40 such cases recorded in 1890. On the discovery of the germ of erysipelas we tried to make use of this clinical observation in 7 cases, using the living germ. A previous worker, in attempting to induce erysipelas artificially, found two difficulties. He only succeeded in giving erysipelas to a few of the cases, and I think one of the cases died of erysipelas, and in one or two cases the tumours apparently disappeared. In 1890 I made a careful study of 92 cases, all the sarcoma cases which had been treated at the New York Hospital for 16 years, and among these I found one patient who had been operated upon four times for small round-celled sarcoma of the breast. The last time it was stated that the condition was beyond operation; all the tissues were involved, and he was given up as hopeless. During the period that the wound was healing up he had a very violent attack of erysipelas, and the tumours disappeared during the two or three years he was in the hospital. I tried to find this man, and I found him in a tenement house. This was seven years afterwards, and I show you a picture of that case. This led me to try to treat cases with the living cultures, and during the following year, with the very great help of Dr. W. J. Bull, our leading surgeon, I succeeded in getting a certain number of cases to try this treatment upon. My first patient was one whom Dr. Bull had sent home from the New York Hospital. I found him in a tenement house, and treated him for four months during the summer of 1891, trying to give him erysipelas, using cultures from different laboratories. It controlled, to some extent, the progress of that tumour. He was greatly emaciated; he had a large tumour in his tonsil, one in his neck, and he could swallow only liquid food, and apparently he had only a few weeks to live. In October I succeeded, by means of cultures, in giving him a violent attack of erysipelas, so that he nearly died; but in two or three weeks' time these tumours had almost disappeared. He recovered his normal weight, and went back to Italy, where he remained well for eight years, and then died of a recurrence of the original tumour. During the year following I treated 12 cases with living cultures of erysipelas. I found two difficulties. I found myself unable to give erysipelas when I desired, and I found a danger, by no means inconsiderable, as 2 of the 12 died of the attack of erysipelas which I gave them. They were all hopeless cases, and all willing to take the risks, which I clearly pointed out to them beforehand. I then conceived the idea of killing the germs first, and so taking away the dangers of treatment, and still trying to check the tumour; but there was only a mild effect on the tumours, slight temporary improvement, no cures, and no entire disappearances. About

that time Rossia, of Paris, in the Pasteur Institute, published his article pointing out the fact that the addition of the bacillus prodigiosus to the streptococcus increased the virulence of the latter, but he had used this only on rabbits, and he had not tried it as a therapeutic measure. Then I, with a doctor at the Bacteriological Laboratory made cultures grown in this way, using a toxin of streptococcus which was grown in bouillon for two weeks, and to which prodigiosus was added for ten days. That was the method which I used up to four years ago. The first cases I tried it on greatly encouraged me. There was an enormous sarcoma of the abdominal wall, spindle-celled, which had been given up as hopeless. In this case after the injection of the toxins the tumour disappeared in 2½ months. The injections were made mostly into the tumour, but some were some distance away. I saw the boy last summer, 18 years afterwards, entirely well. The second case, in the same year, was an enormous sarcoma of the back. I had given the patient four attacks of erysipelas with the living germ, and after the disappearance of this tumour there was a big metastatic tumour of the groin, a large round-celled sarcoma, which recurred a few weeks after its disappearance. After injection of mixed toxins he remained well for 3½ years, and at the end of that time he died of deposits in his liver and abdomen. This case was not permanently successful, but I think it furnished a good reply to the earlier criticism which had been made of the work, that the diagnosis was incorrect, for in this case the diagnosis must have been correct because the disease recurred and killed the patient. Now one of the frequent criticisms is that it is an empirical method. It was empirical in the early days, but that was only true to a certain degree, for it rested upon a large number of clinical observations of very great importance; and it now rests not only upon successful cases, but upon laboratory experiments. To give you a little idea of the clinical data upon which the method rests, I will read you a little from a paper which I published in 1892. Thirty-eight cases of malignant tumour, carcinoma, and sarcoma occurred, 23 were accidentally inoculated, and 15 the result of intentional inoculation, 17 were sarcoma, 17 carcinoma, and in 4 cases the type of the tumour was not stated. In the 17 cases of carcinoma 3 were permanently cured. One case of carcinoma shrivelled after an attack of erysipelas, the remaining ones showed temporary improvement. Of the 17 cases of sarcoma several were well 17 years afterwards. I collected six additional cases from American physicians in which the tumours had disappeared after the attack of erysipelas. So there is a large amount of clinical evidence upon which the treatment is based. Up to four years ago this is how the preparation was made. At that time, about four years ago, Dr. Fraser at Cornell University made a very careful study of the toxins, particularly of the bacillus prodigiosus. Her laboratory experiments showed, as we have known already, that prodigiosus toxins added to erysipelas greatly increased the virulence. She further proved that bacillus prodigiosus toxins alone, without the erysipelas toxins, would cause complete disappearance of sarcoma in a dog. This showed that what I had been led, clinically, to believe was probably true, that the bacillus prodigiosus, used originally only to increase the virulence of the erysipelas, had a real curative value of its own. She further continued her studies in trying to standardise the dose and the strength of the preparation, which had not been done before. Prior to that time, as the cultures grew at a different rate, so every preparation we had to judge of separately, and find out the right dose for the patient. And we had to grow the bacilli separately, adding so much prodigiosus, and estimating by the nitrogen method; she, however, made a well standardised preparation. That preparation has given us decidedly better results, and enabled us to estimate the dose accurately, and to lessen the dangers of an overdose, for there were always these dangers present. Up to this period four years ago, I had only had 10 per cent. of successful cases. I have from the beginning recommended it, not as a substitute for operation, but only for use in hopeless inoperable cases of sarcoma. But even in these, 10 per cent. of cures is worth the effort. Since that time the series of successes has been larger, and the percentage is now nearer 20 per cent. than 10 per cent.

Now a word about the technique of the administration. I have been using the treatment for nearly twenty years, yet I cannot give a definite rule as to how much to use in an individual case, and that is because the susceptibility of patients differs so enormously. No two people have the same susceptibility. I generally lay it down that it is perfectly safe if we start with a minimum dose, which at present I believe to be a quarter minim. In strong patients who are not emaciated, or who have not lost much strength, I begin with half a minim. I do not begin with half a minim into the tumour, but systemically. I began by giving my injections into the tumour itself,

but in the case of intra-abdominal growths, where, of course, that could not be done, I found that the tumour disappeared nearly as well when the injections were given in the gluteal region, or in the arm, or in the axilla. So we were not dealing with a purely local action, as in the case of X-rays and radium, but with a systemic action, although we cannot explain it to the satisfaction of the laboratory critics. Still, we know that the action does take place, and even if we cannot explain it we should make use of it if we find it does good in inoperable sarcoma. If we begin with a quarter minim in the pectoral region or in the buttock, it is safe to increase the amount. I give daily injections until such time as the desirable reaction occurs, that is to say, a slight rigor half an hour to one and a half hours after the injection, the reaction lasting from fifteen or twenty minutes to half an hour. If the patient is in fairly good condition I aim at getting a temperature of 102° or 103° F. Some patients are too weak to give a proper reaction, but with them I give a smaller dose. Having ascertained the proper dose, that is, the one which will give the desired reaction, I give a day's rest, and then inject every other day. Some people can take it four or five times a week. But if the patient has not recovered his general condition after the reaction, and particularly if the temperature has not returned to the normal, the dose should not be repeated. By neglecting this important point, that is, by not waiting for the temperature to fall to the normal, there has been one death that I know of in the hands of another surgeon. In that case there was a good reaction to 103° F., and the next morning the temperature was still 102°, and while that was so he proceeded to give a bigger dose than before. The man went into coma, and died a few hours later. So it is safer to wait for the temperature to become normal before repeating the dose. With regard to the dose which can produce this reaction, it varies tremendously. I have seen temperatures of 104° and 105° and 106° resulting from the injection of a quarter minim into a tumour, and in one case there was death from beginning the injection into a very vascular tumour in the hands of another man. I have never myself seen a death following the reaction, but I have had one serious collapse. In that case I only increased by a quarter minim the preceding dose, and the temperature was only 98°. The patient was very weak, and he had been the subject of fainting attacks all his life, and so he could not be regarded as a fair test. I do not see how that could be avoided. But in an experience of over twenty years I have never seen it before, and you will probably not see it yourselves, but I mention it as a possibility, and as showing that an increase of a quarter minim may produce serious results. That man recovered after careful stimulation, and no material harm resulted. The dose varies greatly. The ordinary person will get a reaction before you have given five or six minims. If the tumour is easily accessible to palpation, and is not too near the great vessels, and of not too high a degree of vascularity, I think there is a better result obtained by alternating the injections, giving them partly systemically and partly into the tumour. But many of my cases have been cured by systemic injections only. Remember when you go from systemic injections to local ones you must give a very much smaller dose. If you are giving two or three minims systemically it will not be safe to give more than one-fifth of a minim into the tumour itself. I have given two minims intravenously without any bad results. There was a temperature, and the patient recovered quickly. I began with one-tenth of a minim in 10 c.c. salt solution, and gradually worked it up.

With regard to the duration of the treatment, in the majority of my successful cases the injection has been given over two, three, or four months, and in some cases the treatment has been prolonged for four years. In this particular case the patient was a prominent surgeon. He had had eight operations for recurrent sarcoma, of the spindle-celled variety, nearly round-celled, of the entire chest wall and the soft parts. Yet he was only laid up from his work for three or four weeks, and then his assistant gave him the treatment in small doses in the evenings after his work was over. With occasional intervals of rest he kept up for four years having the injections, and he is now well. It is twelve years since he had the treatment. I mention this case to show that the treatment can be kept up for a long time without material harm to the patient, and to indicate that it is not necessary to produce a severe reaction. I have seen two cases in which the toxins apparently produced albuminuria. One of the cases occurred two years ago. It was a very large inoperable sarcoma of the lower jaw, and apparently it had been cured by the toxins. The patient was sent home, and the family physician was told to continue the treatment and not to give large doses. But he seemed to think it was better to produce big reactions. I was over in Europe for three or four weeks, and when I got back I learned that this

patient had albuminuria, and that he had been having his injections in spite of that. The boy died in six months. The albuminuria was probably caused by other toxins, and the doses should have been modified, but I have never had a case of my own with fatal albuminuria due to the toxins. I cannot lay down a hard-and-fast rule as to how long to continue the treatment, but I now think it wiser to give it for a longer period than I did originally, because in my 65 successful cases there have been three or four in which the disease recurred and killed the patient, and I now think that if they had been given the doses longer, these late results might have been avoided. There is no harm in giving the toxins longer, because it does not mean that the patient has to stay in hospital all this time until the tumour has disappeared. The smaller doses can be kept up by the family physician for an indefinite time without preventing the patient from following his occupation. One patient whom I have been treating was sent as an inoperable case, and has been treated over here. Only for two months was he laid up from his work. The injections were given three times a week, then twice a week, then once a week, then once every two weeks, and finally he had them once a month. He has been taking them over a year, and he is perfectly well. He had an inoperable small round-celled sarcoma in the lower jaw, involving the glands of the neck.

Now a word about the signs of improvement. The first sign after the use of the toxins is diminished vascularity. The tumour becomes paler and there is increased mobility. Instead of a perfectly fixed tumour, in a few days it becomes so that you are able to pick it up in your fingers and move it about. These early signs may occur very quickly. I have seen very marked improvement occur in one week, and before the dose had reached the point at which there was a marked reaction. The most marvellous effect I have seen in a short time was in a case of carcinoma, for which disease I have not advised the toxins at all as a routine measure. It was an enormous inoperable carcinoma of the mastoid region, involving the tissue in front of the ear and down in the neck. In this case marked improvement occurred, and one tumour disappeared. There was no reaction, and the highest dose was one minim. The patient was so bad that I gave a fatal prognosis; but at the end of four weeks the patient was in the park and the tumour had apparently disappeared, and at present he is well. I do not regard him as cured—he will probably have a recurrence—but the marvellous effect produced in this worst type of tumour was as remarkable as anything I have seen in sarcoma. This man only had three injections during the entire time; two of them were moderate, and the highest dose was one minim. Each dose was given in the pectoral region, none locally.

Now with regard to the indications for the use of the toxins. What cases shall we use the injections for? Sir Alfred Fripp has given you a general outline of my attitude on the question. From the start I have never advocated it as a substitute for operation, and 80 per cent. at least of all cases of malignant tumours, particularly sarcoma, recurred after operations by the most skilful surgeons. So we have ample field in which to try this method without encroaching on the territory of the surgeon. Seeing a large number of these inoperable tumours disappear, and some of them in cases in which I had advised operation and the patient had refused, particularly cases in the long bones, I was led to change my indications and to make the class of case a little larger, to embrace sarcoma of long bones before operation, where operation meant the sacrifice of an arm or leg. I began it, as a routine measure, six or seven years ago, but I had done it in some cases before that. I will mention two cases which led me to advise this treatment in that type of disease. One was sarcoma of the tibia. A microscopical examination was made by a qualified man at the Medical School, and amputation of the leg had been advised. He was sent to me for advice, and I said I would try the use of the toxins for three or four weeks, and if no improvement occurred, amputate his leg. In three weeks there was improvement, and at the end of a few weeks he got erysipelas, and he recovered, and is living at the present time. He was well in September, with one leg as useful as the other, and that is at the end of 13 years.

Here is another, a very much more convincing case, showing my reason for including these cases in the preliminary treatment before operation. It was the case of a small round-celled periosteal sarcoma of the femur, the nature being proved by microscopical examination. In this case I strongly advised, ten years ago, amputation at the hip joint, but I confess I had very little hope. I had done six hip joint amputations without a mortality from the operation, but five of them had died within one year, of metastasis, and the sixth case I was unable to trace. I have much the same

idea about periosteal sarcoma of the femur and other long bones as your Mr. Butlin has. He collected cases in which the operation had been done for sub-periosteal sarcoma of the femur, and only one of the cases was cured. So I urged it here. The boy would not consent, and his parents would not consent. It was in 1902. I gave X-rays for a considerable time, two or three months, and meantime he developed a metastasis, of the size of the hand, in the left pectoral region, and an ileo-lumbar tumour the size of a child's head. I gave him the toxins, and, to my surprise, his tumours rapidly disappeared, and at the end of six weeks the big tumour in his ileo-lumbar region was so softened that it was fluctuating. So I made a posterior incision and put in a large drain. And, to make a long story short, the patient is well at the present time, nine-and-half years afterwards. I showed him last year at my clinic. I thought it might be of interest to show you the X-ray picture in that case, taken nine years afterwards. He had a very large amount of new bone formation. You can see that his bone is still thickened, not only with the tumour, but with chronic osteitis. That leg is as useful as the other. The only trouble is that he is still unable to heal the X-ray burn in his skin which was produced nine years ago. Here is a picture of a sarcoma of the ileum which disappeared under a year's treatment, with periods of rest, and he is well. I saw him in September, just before coming away. That was treated five years ago.

Those two cases were sufficient to convince me of the wisdom of not sacrificing the leg or arm before trying the toxins, and in a paper which I have read on the preventive treatment of sarcoma of long bones, I gave a report of my cases of sarcoma of long bones up to the present time. I have 23 cases of sarcoma of long bones, one of which is over three years, and in 9 cases the arm or the leg were saved by the preliminary use of the toxins. I would diverge here for a moment to express my opinion on what I regard as one of the most important points in the treatment of sarcoma of long bones. In some of the hospitals of London there is a strong feeling—which I am glad to find does not seem to be shared here—against the wisdom of exploratory incisions in cases of sarcoma. I was asked to start a treatment in a case of sarcoma of the tibia, presumably, and I refused to do it without a preliminary incision, so that I might know what we were dealing with. The surgeon stated that it was certainly sarcoma, because not only the clinical appearance but the X-ray picture confirmed it. The point I wish to make is, that the X-ray photograph must never be regarded as the deciding feature in the diagnosis of sarcoma of long bones. I would cite two cases which strongly emphasized this opinion. Here is the first series of photographs, which I will pass round. The first occurred in a young man, a medical student, in one of the Southern States, It came on a few months after a football injury. He had this large tumour above the knee, on the anterior part of the femur, and it went nearly round the femur. The surgeon asked me whether he should amputate at the hip joint, or treat the case with toxins. I advised that if he were no better after the toxins had been used for four weeks, he should amputate. I had a letter saying he was no better, but I said I would not give an opinion until I had seen the case. He brought me photographs. From the peculiar hardness of the tumour I had the impression that it was not sarcoma, and the X-ray picture confirmed my opinion somewhat. You can see a sharp line of demarcation between the tumour and the bone itself. That is something which I thought never occurred in sarcoma, but I had a case recently in which it did occur, but it was a very rapidly growing one. As a rule, however, that is very important. I said I did not believe it was sarcoma, but that it was myositis ossificans, and advised exploratory excision, which I was allowed to perform. A piece of what I removed was examined by our pathologist, and was pronounced to be myositis ossificans, with no trace of malignant disease. He has now completed his studies at the Medical School, and I saw him four years afterwards, well. He had had no trouble since. Two years later another case was sent to me from the Middle West, in which all the experts with X-rays said it was sarcoma, and amputation was advised, even more strongly than in the other case. They said, "Have your leg off to-morrow; do not delay." In this case, more by the sense of touch than from the X-rays, and from the rather longer history, I was convinced it was not sarcoma. I explored, and the diagnosis was the same as in the other, and was confirmed by Dr. Ewing. She played golf after three years. So the danger which is insisted upon, and rightly to some degree, by professors of surgery, of exploration, that there may be general dissemination of the growth, is answered by the accurate knowledge it gives you of what you are dealing with. You must know before you take off a leg, whether it is operable or not, and you can know by making an exploratory incision. You need not make a large one. If you are called on to amputate I

should not do so as formerly, at the hip joint, but lower down, so as to make possible the use of an artificial limb. And in a number of femur cases where I could not cure the disease by toxins, I have followed this procedure, and the patient can wear a false leg. Some of these are well three years afterwards, some of them six to seven years afterwards.

Now with regard to carcinoma. In 1903 I tried some cases of carcinoma, with limited results. There was temporary improvement in a few cases. In one case, of which I show you the photograph, one of carcinoma of the lower jaw, involving the floor of the mouth and chin, the patient recovered in two months after treatment with the toxins. I had another case from Boston, of carcinoma. Both breasts had been removed, and there was an extensive recurrence. The case was treated by toxins for a long time, and remained in fairly good health for ten years, and at the end of that time died of intra-abdominal recurrence. So, after those recurrences, I do not advise the fluid, except in sarcoma. But in recent years, since the dual preparation has been used, I have tried it in a few cases of carcinoma, and one of them I have already described to you to-day. I have not reached the point of advocating that as a routine in carcinoma, but I give you the facts, so that you may know what it does in carcinoma. Two years ago, last February, I had a case in which I removed both breasts for carcinoma, an extensive removal, and a year later there was recurrence at the site of the original operation, and the glands behind the mastoid were enlarged. I said there was nothing to be done in the case, as it was hopeless, and advised the physician in charge to give morphine. The family were anxious to have something done, and asked me about the toxins, of which they had heard. I said they would not give her hope of cure, or bring about anything more than a slight temporary improvement. They insisted, however, on having the toxins tried, and they were tried, by the family physician under my directions. I told him to give very small doses. The tumour immediately began to show improvement, and at the end of two or three months almost disappeared. In six months it had disappeared, and the woman is well to-day, nearly three years afterwards. I do not regard her as cured; she may have a recurrence. Dr. Leggio published in one of the Medical Journals of Quebec two similar cases, almost identical. The toxins were given for a considerable period, and resulted in disappearance of the tumour, and in one case the patient is well four years afterwards, and in the other case, two years. The fact that the toxins have a marked inhibitory action in these cases merely reinforces the opinion which I strongly held, and that is, that the toxins should be used as a routine measure with every case of operation for carcinoma, to prevent or lessen the number of recurrences. It does not mean that the patient has to be kept in hospital a long time, nor does it mean that you give the patient severe reactions. You give a dose sufficient to produce a temperature of 100° F., two or three times a week, and this can be kept up by the family physician, and would not seriously interfere with the patient getting up and doing what he or she desires to do. This method has been adopted by some of the leading surgeons in New York. As an example of the value of the toxins after operation in preventing recurrence, I may cite a case of sarcoma of the kidney. You know that in children this is one of the most malignant of all diseases, for it almost always recurs, and proves fatal. The child was 1½ years old, with a very large round-celled sarcoma of the kidney. The toxins were used for 2½ years by the local doctor in Arkansas, which was a year longer than I thought necessary. The child is well, and I have had a letter from the father since I have been over here. That was six years ago, and there was no recurrence, and probably it will not recur.

I will now cite one or two cases to show how desperate a case may be and yet it may be worth while to try the treatment. Here was a case in which there was a round-celled sarcoma of the upper jaw, with involvement of the liver and abdomen, evidently, for there was marked jaundice and distension, and he had been given only two or three weeks to live. He heard of the toxins, but the physician said he would not use them as they could be of no use. The man said, "Then I will get another physician." The doctor then consented. All the injections were systemic, in the arm, and he got well, and he came to New York to tell me a year after he recovered. He lived for over six years, and when he died it was from an independent disease. The diagnosis was confirmed by such a high authority as Professor William H. Wells. Here is a growth of extensive character shown on the photograph involving the whole thorax, thirteen inches by seven, a spindle-celled sarcoma. This lady had four months' treatment and she is well twelve years afterwards. Here is a case which illustrates a very important point, namely, the good which the toxins can

do in giving a reaction long after the injections have been stopped. This is a case which had been pronounced inoperable in which I began in 1894. There was recurrent sarcoma in the gluteal region. I tried for three or four months but there was very little improvement, so little that one could hardly say it was improvement. She felt discouraged and went home. Next year, after the treatment was stopped, and without any further treatment, that growth gradually subsided and practically disappeared, all except a little fibrous tissue. I showed her before a society three years ago, fifteen years afterwards, so that is now eighteen years, and she has never had anything more than the treatment for the first four months. I have here a photograph which is interesting because it shows how different people have different results. This was taken after a man was cured of spindle-celled sarcoma in the glands, as big as the first. After three or four weeks' trial the case was given up as a failure, there being no improvement. The only difference in the treatment was that I gave him larger doses; he had chills nearly every day, and he got absolutely well and remained well over six years, when he died of another disease.

One more case I will cite, and that is all, to show how desperate a case may be and yet recover. This was a sarcoma involving five vertebræ. It was round-celled. This man I found at the Home for Incurables. He had lost 60lbs. in weight, you could reach your fingers round his thighs, he had total paralysis of the bladder and rectum and in the lower extremities, and he could not turn over in bed. If I had not had a box of toxins in my pocket I should not have tried the treatment. The treatment was carried out by the hospital people under my directions. He had the treatment for only four months, to the extent of giving him severe chills, in spite of his weakness. He got entirely well, recovered completely the use of his legs, and was able to walk without crutch, cane, or support, and he was well and working in the Victoria Laundry of New York eight years later. I had no hope myself of doing him good.

I will now read to you the final results. At the present time I have had 65 cases of inoperable sarcoma in which the tumour has disappeared entirely after the use of the toxins. The utmost efforts have been made to trace the results. They were as follows:—

7 were alive after 18 years;
7 were alive after 10 to 15 years;
17 were alive for 5 to 10 years;
10 were alive and remained well at the end of 3 to 5 years.

That makes 41 cases who were traced and known to be well between 3 and 18 years afterwards. This, I think, is sufficient to show that in a certain number of cases we can cure inoperable sarcoma, cases which otherwise are absolutely hopeless from any known method of treatment, as far as I am aware. A criticism which is sometimes made is, that no other people get these results but me. My answer to that is simply that it is incorrect. And the information which I have quoted from in my works shows it is incorrect. I have specific reports of 30 successful cases in recent years in the hands of other men, and I have heard of 4 since I came to London, four in this city, none of which have yet been reported, and I am learning of new cases every day in America. In Kansas one man has had five cases. A Professor in Breslau wrote me a short time ago that he had tried it in five cases with one success. That is higher than some get. Some men give it an imperfect trial. They do it themselves. They read up the technique, but they find it is not so easy as giving a dose of calomel or sarsaparilla. You must at least give the time to read the dose on the bottle, but some have not even done that. One man I saw in New York at a medical meeting said to me, "I have been using your toxins but I gave up." I said, "What sort of cases and with what results? How much did you give?" He said, "I gave him 5 m." I said, "Where did you give it, into the tumour?" "Yes." "Where is it?" "In the neck." "How long did he live?" "Oh, two or three hours." My express instructions are to begin with ¼ m.; yet he gave it in this way. Another case was that of a St. Louis man. He had had an operation on the lower jaw two or three times, but the surgeon could not get it all out, then the assistant tried, the surgeon having turned it over to him. The assistant proceeded to give 20 m. Fortunately, he injected it into the buttock or into the pectoral region, I forget which. The woman went into coma, and was in it for three days; but she came out of it and continued to take the toxin for 1½ years, and she is still alive to tell the tale.

Dr. HALE WHITE:—By your expressions you have made it unnecessary for me to remind you that we have just heard probably the most interesting lecture that has ever been delivered in this theatre. Therefore I am sure you will agree with me that we ought to pass a very hearty vote of thanks to Dr. Coley for having spared the time to come and give us such a treat.

I have great pleasure in proposing a hearty vote of thanks to him.

The proposition was carried by acclamation amid a scene of great enthusiasm, which lasted some time.

Dr. COLEY: I am greatly obliged to you, gentlemen. What I have heard led me to believe that British audiences were cold, but I have never in my own country received such a hearty reception as you have given me to-day. Sir Alfred Fripp tells me that you have tried the fluid in the hospital. The trouble has been that a different preparation is sometimes used. Mr. Mansell Moullin, at the London Hospital, had five successful cases, and he said he got successes with the fluid obtained direct from the Cornell Laboratory. Middlesex Hospital had four cases last year, but three with no results; but in one case in which there was a tumour in the thigh, and the fluid was used from our laboratory, the report was a diminution to one-fourteenth within a few weeks. So it depends on the preparation. I will supply any hospital free of charge with the fluid until such time as it is possible to get it from other sources.

The Residents' Theatricals.

To the Residents, Christmas means more work and, if possible, less pay. On the one hand they are confronted with the necessity for organising and musically educating a troupe of "Niggers," and, on the other, with the more difficulty task of producing a dramatic entertainment out of material which is limited in quantity and comparatively unknown in quality.

This year, however, their labours were rewarded with entire success. Novelty was combined with genuine wit, the staging was most effective, and the musical part was beyond all praise. The Hospital, as a whole, owes a genuine debt of gratitude to all who in any way took part in the preparation or performance of a memorable production. The Theatricals were performed on the evenings of December 26th, 27th, and 28th, and began with the representation of "Laughter in Court," a one-act play by Capt. John Kendall.

The theme of the play was slight, though with a certain amount of moral teaching for any magistrates or judges who may have been in the audience. The plot turned on the humiliation of a would-be humorous magistrate who dispenses jest rather than wisdom, and is more eager to produce laughter in court than to attain the ends of justice. He is adroitly caught in his own net by one of his former victims, who persecutes him with atrocious cornet-playing, for which there is no legal redress. All ends happily, however, in the discovery that the cornet player is an author for whom the judge has long entertained the highest regard, and the curtain rings down on a scene of mutual congratulation.

The acting throughout was good. Thomson, as the magistrate, had a difficult part to play, but succeeded in maintaining the character of a harassed judge with conviction and spirit. Barber had a part for which he was naturally well adapted, and in the acting of which he was supremely himself. Dunderdale and Glendining played their respective parts with success, and the side whiskers of the latter excited general admiration.

In the interval between this play and the more serious business of the evening the audience was entertained by various artistes, Miss Katharine Dyer, Mr. Harold Chapple, and Miss B. Mowena Trefusis with Mr. Geoffrey Seabrooke, giving musical selections on the different nights.

The performance in regard to which the greatest interest was centred was the representation of "Mactreth," a pseudohypertrophic musical dystrophy in four acts, composed by Messrs. H. W. Barber, A. Neville Cox, and E. G. Schlesinger, with the assistance of Mr. A. L. Gardner for the musical, and Mr. Stanley Cock for the artistic effects.

The *Prologue*, delivered by Barber, opened the proceedings, a piece of versification which excited both interest and amusement, maintaining a truculent tone throughout, and concluding with the careless remarks:—

"And if you should regret you came,
Or find our mumming pall,
You've only got yourselves to blame
For having come at all.
We shall not let our hearts ache
If you do not like our play;
For our motto's "Art for Art's sake,"
And we don't get any pay."

Then rose the curtain on a scene of mystery and darkness called, according to the programme, "The Blasted Park," though nothing could be seen save three sombre figures crouching round a cauldron in which the limelight wrought strange fantasies. A ghoulish voice shrieks out:—

"When shall we three meet again?
In thunder, lightning, or in rain?

To which an even wierder voice replies:—

In the "Ship" at set of sun,
When this masterpiece is done."

So far, good but mysterious; but here enters another black-robed figure, who is greeted by the rest as "Sister," and now we feel on more familiar ground. After a preliminary committee meeting, the witches, with Sister Hecate at their head, circle round the cauldron, chanting gruesomely as they go a refrain reminiscent of Macbeth, and yet containing allusions to subjects better known in hospitals than to Elizabethan dramatists:—

"Round about the cauldron go,
In it this concoction throw:
Hyd. cum Cret. and Salvarsan,
Liver of cirrhotic man;
. . . . . .
Lithopædion and pus,
Cavities tuberculous.
. . . . . .
Sputum bronchietatic,
Shaving papers left by Dick;
. . . . . .
Send it on to Dr. Pitt,
He will find some use for it."

This business over, Sister Hecate departs, the witches exclaiming with relief, "Now we can sit down." (Loud applause from the nurses in the audience.) Their repose is soon broken by the entrance of Mactreth and Banquo, two H.S.'s, in white coats, so that the witches sigh, "Now we must get up again." (Deeply sympathetic applause from the nurses.) The newcomers soon observe the witches, and fearfully question who they are. The witches reply by prophesying that Mactreth shall one day be R.S.O., but Banquo is doomed to death. Mactreth, though fully conscious of his own superlative capacity for the post of R.S.O., rather doubts the likelihood of his attaining it; for, as he says:—

"Yet Duncan, with position unassailed,
Obstructs the path that I was meant to tread,
And naught save death or reckless love can trip
His steadfast feet. His daily portion is
Three pints imperial of paraffin.
Thus will he live to threescore years and ten.
From Cupid's venom, too, his heart's immune,
So how can I be R.S.O. ?"

The witches, meanwhile, have vanished, but, suddenly, the lights go up, and they return, this time as charming nurses, and are appropriately received as such by Banquo and Mactreth. Now we are able to appreciate the beauties of the scenery in "The Blasted Park," the window frames hung with beads, decorously representing the Nurses' Home, and the pile of bricks so elequent of "Clinical." Now one of the nurses breaks out into song [we know her better as Carey in private life], and a delightfully humorous topical ditty is given called "The Man in the Park," describing the progress of the average medical student.

The enthusiastic encores for this musical interlude are only brought to an end by the entrance of Mrs. Mactreth, an elegantly attired female, and Sister Hecate. Mrs. Mactreth is consumed with jealousy over her husband's flirtation with the nurses, and a touching domestic scene follows, at the end of which Mactreth informs his wife of the witches' prophecy. The good lady promptly decides that the only way to *eject* Duncan, the present R.S.O., is to *inject* him, hypodermically. Duncan himself now appears, as usual, septic again, with his arm in a sling, and requests Mactreth to take him in. Mactreth, seeing his opportunity, joyfully agrees.

"To Cawdor Ward I'll take you in with pleasure,"

Whilst his wife, with murder in her eye, concludes the act by saying:—

"And when he's there, you'll treat him at your leisure."

Act II. takes place in Cawdor Ward. To one side is the fireplace with the night nurse's table; in the centre a cot occupied by Glendining as a lusty and vociferous Borough patient; and at the other side a bed screened off in anticipation of its use by the R.S.O., and numbered 13, that symbol of fate. A night nurse (who would have believed that Edmond possessed such charming potentialities ?) is taking the patient's temperature, and he is protesting in a typical way. The nurse departs, giving the patient an opportunity with vivid reminiscence to describe his adventures as an Out-Patient. The account he gives of his visits to Mr. Fagge, and Drs. Beddard and Fawcett is sublimely humorous, and his acting is true to life; indeed, a Borough native could learn many things from him. Enter now Mr. and Mrs. Mactreth, the latter eyed appreciatively by the patient in the cot. Mactreth is doubtful and anxious, "willing to wound, and yet afraid to strike," whilst his wife is scornful of his fears and all eager for him to murder Duncan. She suggests that he should do the deed with an overdose of strychnine, quoting Dr. Beddard as an authority that it is "absoballylutely useless to give anything less than a pint." The night nurse returns, and the conspirators retire. Night nurse having realistically settled down, Duncan arrives, and, after a short soliloquy on the reversal of fortune which he is undergoing, goes off to bed behind the screens. Night Sister appears, and she and nurse start to go round whilst the R.S.O. and the patient discuss streptococci and other interesting subjects. Nurse and Sister return, the latter leaving strict injunctions that "if anybody coughs, ring up the H.S.; if number six has a headache, ring up the H.S.; if number two complains of the weather again, ring up the H.S.; and above all don't use your own discretion, it's a thing no self-respecting Guy's nurse ever does."

After this gross libel on the Nursing Staff, Mactreth and two take-in dressers appear, and the former decides to give Duncan some strychnine. Nurse is suddenly called away because "21 has thrown his bedclothes in the steriliser," and Mactreth is left alone with the strychnine. Down go the lights, and Mactreth, looking ghostly in the green limelight, is seen to be holding a huge hypodermic syringe and soliloquising in true Macbethian style:—

"Is this a syringe that I see before me?
The handle towards my hand, or is it merely
The phantom image of a morbid mind,
Unhinged by too much spirit? Can it be
That this is nought but vain imaginings?
Or the psychosis of exhaustion so
Well known to Dr. Craig? Oh! still I see
Thy sharpened point that heralds me the way
That I must go; and yet thou can'st not be
An earthly syringe, for thy piston works
As never earthly piston did before!"

However, he decides the syringe is good enough to try, and so injects the unhappy Duncan with fatal result. His wife rushes in, urges Mactreth to run off and fetch the nurse promptly, and herself cries triumphantly:—

"The corpse which lieth here would seem to be
A stepping-stone from which we'll rise to fame;
A house in Harley Street, a motor car,
And, who can tell, perchance a knighthood, too!"

Mactreth now returns with his dressers and the nurse, and they discuss what should be done, for, as Mactreth says, "it's not on my standing orders what one does with a defunct R.S.O." They decide to ring up the Superintendent, but pause on finding it is 2 a.m., eventually tossing odd man out who shall take the risk of disturbing Sir Cooper at such an hour. The lot falls on Mactreth, and an amusing one-sided conversation is heard at the telephone, concluding with the thanks of Mactreth for, as he subsequently explains, the Superintendent has said "that the man who was brave enough to ring him up in the middle of the night deserved to be made R.S.O.," and so has appointed Mactreth on the spot.

The act concludes with the singing of "When the R.S.O. is King," a song in which many and wonderful changes are foretold. Amidst all its humour and jest one verse is of real sincerity:—

"The year that's to come holds a very sad feature,
When Charters is due from the Staff to retire;
His fame as a surgeon, a man, and a teacher
Is such as is given to few to acquire.
On Mondays when seeking for surgical teaching
The men will be most disappointed, I'm sure,
Effects on exams will be really far-reaching,
And pass lists will not be so long as of yore.

But, when the R.S.O. is King,
Oh, what changes it will bring,
And Charters retired will, we hope, be inspired,
And a book to press will bring,
When the R.S.O. is King,
Oh, what changes it will bring,
For that surgical book we shall certainly look
When the R.S.O. is King.

Perhaps the greatest success in Act III. was the large painting of "Sir Astley Cooper Perry" which adorned the scenery at the back of the stage, and in which the artist, Mr. Stanley Cock, had adroitly contrived to blend the characteristics of the well-known picture of Sir Astley Cooper with the living features of Sir Cooper Perry. The act itself was not quite up to the standard of those which preceded it, but it served to carry on the plot, and provided plenty of opportunity for parody of the traditions of the Residents' Table. Mactreth is now R.S.O., but with a guilty conscience and a conviction that Banquo knows the means by which he has attained his end. Banquo, therefore, must die too, and the services of McSted, a professional murderer (in other words, an H.P.), are hired to dispatch him by throwing a loaf of Standard Bread at him during the dinner. The plot is successful, and Banquo is carried out dead, the Residents regarding the tragedy with callous indifference. Mactreth is now himself seized with the pangs of remorse, and indigestion, and quits his seat, affording an opportunity for the ghost of Banquo dramatically to return and occupy the vacant place. Mactreth alone sees the spectre, and his horror is extreme. The other Residents depart in disgust, and Mactreth is attended to by his wife who, during this act has been somewhat inconsequentially taking the part of a waitress.

Act IV. proved an excellent representation of the operating theatre in Clinical at dead of night. Both Mactreth and his wife have been admitted as patients, and the former is shortly to be operated upon. After some witty jests at the idiosyncrasies of Clinical and its inmates, the scene becomes dramatic by the entrance of Mrs. Mactreth in her nightdress, sleepwalking. The ghostly effect is greatly enhanced by the limelight playing on the sleepwalker, and Fox, as Mrs. Mactreth, acts superlatively well. In long, drawn-out, almost agonised tones she wails out fragments of the history of the crime, but the note of tragedy is relieved by the practical way in which a Clinical sums up her case as "Hyoscine; strong room; Craig; infirmary." She retires unawakened, and the Clinicals enter to get the theatre ready, the situation affording Carey an opportunity for singing a capital song about the ways and manners of the Staff, each verse concluding with the cautious reminder:—

"But after all, he's on the Staff,
And so it's better not to laugh,
Because we know that too much chaff
May shoot us for appointments."

The play now unexpectedly draws to a conclusion. Mactreth is brought in for operation, and whilst the Clinicals are washing-up, he indulges in a last and prolonged soliloquy, with, however, the unexpected, though perhaps not unnatural, result, that he chokes with his own words, and dies, exclaiming:—

"Ah, God! My words do choke me! My flow
Of sentimental balderdash has caused
Œdema of my glottis. Help! Quick! Quick!
A trachy tube at once! Feel for my cricoid,
And plunge the knife—It is too late—I die!"

He is borne away, and all break out into unholy merriment, chanting the refrain of "When the R.S.O. is King" as the curtain falls for the last time.

Despite the general excellence of the play as a whole, legitimate criticism may be directed against the ending, and we believe a more suitable finale was originally planned, but, unfortunately, not carried out. To write an effective ending to a play is, perhaps, the most difficult part of the playwright's art, and the fact that the conclusion of the last act was inconsequential, lacking coherence with the general trend of the plot, was but a slight blemish on the whole. Otherwise, in the play itself, there was little that could give rise to adverse comment. It went with a swing, the dramatic opening immediately secured the entire attention of the audience, and there was never a moment's dulness from start to finish. Especial praise is due to the excellence of the songs, their singer, Mr. Carey, the musical composer, Mr. A. L. Gardner, and to the stage manager, Mr. L. E. Berman.

Amongst the actors, Saner as Mactreth, Fox as Mrs. Mactreth, Glendining as the patient, and Carey in various parts, divided the chief honours. Each, in his way, was excellent. Saner maintained the title rôle with skill and dramatic insight; Fox was entirely at home in his part; whilst the only regret with regard to Glendining was that we did not have more of him. Carey, of course, delighted everyone with his singing, which greatly enhanced the effectiveness of the songs. Edmond proved a most fascinating nurse and Tudge a severely proper Sister, whilst Roe showed that he will certainly be a success in any future ghostly existence. The others were all admirably adapted to their various parts, and, indeed, the whole play may be summed up as skilfully planned, ingeniously produced, and admirably acted.

A. S.

Astley Cooper Concert.

As is customary, the Sing-Song in Astley Cooper was the last of the entertainments given in the wards, and it went, as it always does, with a swing from start to finish. Nearly all the songs were provided by local talent, and we are, perhaps, sometimes inclined to forget, until Christmas week is really over, what a strenuous time it has been for all those men who have been ready to tire themselves out in providing entertainment for others. Mr. Blake set the ball rolling in capital style with "Gipsy John," Mr. Langdon followed with "The Yeoman's Wedding," then came Mr. H. N. Eccles, who is

absolutely made for an Astley Cooper audience, and we are informed that from London Bridge Station you could hear the patients singing his chorus—"All going the same way home." Mr. Guy Sadd then delighted us with a violin, Mr. Clive Carey being at the piano, and then came Mr. Carey himself, singing as only Mr. Carey can sing, with such exquisite charm, "The Gentle Maiden," followed by "Jeannie's Mantle" as an encore. Afterwards came Mr. D. A. Mitchell, whom everyone was glad to welcome after his trying experiences on H.M.S. *Hawke* in the Solent; he sang "Tooth-brush and Sponge." Then Mr. Langdon returned to the platform with "Rolling down to Rio," and after that again, Dr. P. S. Price, who had taken the trouble to come over from Sloane Square after a busy day, to delight us with memories of his past triumphs in Astley Cooper; of course, he sang the famous Char-a-banc song and told the story of *his* famous joke. Mr. Guy Sadd was then kind enough to give us two of the "Henry VIII." dances, with the object, so we are told, of persuading Mr. Robert Stout to sing his song, which has evidently been one of the events of Christmas week, and for which repeated calls were made by the Astley Cooper patients. Everybody who heard Mr. Sadd play knows that he is a very great performer, and we know that we shall hear more of him later. Then came an interval, during which everyone attacked the refreshments so kindly provided by Sister, and we had breathing space to admire the successful arrangements for the evening which she had made with such very great labour.

After the interval came Mr. Dunderdale who has an excellent voice which he might use to still greater advantage, then Mr. Joly who sang very well "The Admiral's Broom," and then Miss Dresser who gave us, very charmingly, "Tit for Tat." By this time the patients were thoroughly roused, and Mr. Eccles fairly brought down the house with "Mary Ann" and "The Village Pump." This was followed by Mr. Stout, who, as Mr. Symonds' House-Surgeon, was the M.C. He gave us, of course, his now famous song, "Henry VIII." and we don't believe that he would have been allowed to sing anything else if he had wanted to do so. Then came Mr. Harkness, in rollicking mood, who gave amidst tremendous applause "The Hebrew Wedding" and "All clear out of the Park." Then Mr. Clive Carey once more with "Down by the Wangaroo" and "Jane from Maiden Lane." One of these, we have been given to understand, was at the request of the Home Sister. We suppose, of course, that it was the first song. Afterwards Mr. Joly gave "She only started Giggling" and "Oysters and Clams," amid roars of laughter. Then Mr. Eccles, always kind enough to be never tired of helping the patients to enjoy a Christmas in the Wards. He gave us "Flanagan" in his very happiest mood, after which Mr. Dunderdale and Mr. Glendining added the final successes to the evening, with the "Pearl of Putney" and "Mr. McKay." The Concert terminated, as is usual, with "Auld Lang Syne" and "The King."

Sitting in the front row was a typical Astley Cooper patient who was heard to remark to his pal that either Mr. Eccles or Mr. Harkness would make a pot of money at the Star Music Hall if ever they chose to turn their hands to it. In view of the future uncertainty which awaits the medical profession (*vide* the letters to and for the Editor of the Gazette) we think this opening should be remembered, but, at the same time, we hastened to assure the critic in question that these two gentlemen were distinguished in private life by Tastes which were as thoroughly exclusive as they were quiet and refined. (Plymouth papers please copy—EDITOR.)

The Nurses' Entertainment.

THE Nurses' Entertainment, held in the Home on December 29th, was a complete success from every point of view. It was a great improvement to have a printed programme of the dances, and this, and the presence of a good band, made the dance, which is always so important a feature of these entertainments, still more enjoyable than it has been in former years.

The nurses' sitting-room was packed by a large audience, which included many members of the Staff, for the dramatic and musical part of the entertainment. This opened with a one-act playlet called "Snowed Up with a Duchess," in which Nurse Hope played the Duchess of Salterton, a great lady of sociological leanings, and Nurse Bott played the part of Mrs. Hodge, a parish *protégé* of her grace's. Nurse Calvert was very successful as Mrs. Cholmondeley Jones, a *parvenue* and toady of the aristocracy; but the chief honours fell to Nurse Grant in the part of Madame Value, the Duchess's dressmaker. Nurse Grant acted very cleverly, and without the exaggeration which might so easily have been put into the part by a less capable actress.

This was followed by a variety entertainment given by a troupe known as the "Guy's Follies," consisting of six nurses in dashing pierrot and pierette costumes. Nurse Brereton opened the show with an introductory song, and Nurse Hirst accompanied throughout, and also took part in some topical dialogue which evoked much applause. Nurse Oliver sang "If no one ever marries me," and "My Moon," both charmingly. Nurse Fletcher sang "The Toothbrush and the Sponge," and the waltz song from the "Chocolate Soldier," very effectively. Nurse Drower's two songs, "Tinker, Tailor," and "Grow, little Mushroom, grow," were enthusiastically received, as they deserved, for she possesses the not too common combination of a really good voice and a talent for acting.

An excellent performance of "Between the Soup and the Savoury," concluded the programme. Visitors to former entertainments expected a clever piece of acting from Sister Gladys in the part of the cook, and they were not disappointed. Nurse Knight's Emily, the kitchen maid, was a delightful piece of work, which gave one pleasure to see, and Nurse Colston, in the somewhat smaller part of Ada, the housemaid, played up well to the other two. "Between the Soup and the Savoury" was a distinct success.

After the dramatic entertainment there were other attractions. Hands were read and fates pronounced by mystic ladies in magic garb. A novelty was a hat-trimming competition for men. The hats, worn on the heads of their unhappy trimmers, were judged by the Matron and Mr. and Mrs. Fagge. Much sympathy was felt for the winners, Mr. P. D. Scott, first, and Mr. A. N. Cox, second, to whom the prizes were graciously presented by the Matron. Another competition was a test in sight-memory and smell-memory, won by Mr. O. G. Morgan.

"Auld Lang Syne," and three hearty cheers brought a very enjoyable evening all too soon to an end.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

Sir Cooper Perry.

DEAR SIR,—A gratifying announcement was made in the GUY'S HOSPITAL GAZETTE of December 9th, to the effect that the sum of £1,000 had been presented to Sir Cooper Perry, the interest on that sum to be used for the benefit of the men trained or in training at Guy's, in a manner to be decided by Sir Cooper Perry.

Writing as an old Guy's man I feel that such a gift forms a precedent of far reaching importance. The donation in itself is magnificent, and its value is doubled by the terms of the gift, which is to form a memento of Sir Cooper Perry's great services to the Hospital. Such a gift goes far to increase that sympathy which exists between the Staff of the Hospital and its Students.

This recognition of the great work that the Superintendent has done in every branch of hospital organisation, has been diverted into a channel which will enable him to benefit some of the students that he has found most deserving of recognition for the good work they have given for our old hospital.

This shows an admirable understanding on the part of the donor of the absolute necessity for *esprit de corps* in the efficient working of such an institution as Guy's Hospital.

The announcement of the way in which Sir Cooper Perry intends to distribute this money will be received with the greatest interest; and cannot fail, in his able hands, to produce a lasting benefit.—I remain, yours faithfully,

YEAR 1900.

Appointments.

Medical School Appointments.

JANUARY—MARCH, 1912.

The following appointments have been made by the Treasurer upon the recommendation of the Medical Council:—

Clinical Assistants in Clinical Wards.—Messrs. F. Cook, H. P. Warner, B. R. Parmiter, R. Montgomery, B. Blackwood, J. L. M. Symns.

Clinical Assistants in Medical Wards.—Messrs. E. Lawrence Jones, R. S. Kennedy (Dr. Hale White); W. E. S. Digby (Dr. Pitt); A. Seabrooke, L. B. Stringer (Sir Cooper Perry; J. M. Joly (Dr. Shaw).

Clinical Assistants in Surgical Wards.—Messrs. C. Worster Drought (Mr. Lane): F. Tooth (Mr. Dunn); G. B. H. Jones (Sir A. Fripp).

Dressers in the Ear, Genito-Urinary, and Throat Departments.—Messrs. J. L. Perceval, V. A. Luna, C. Sherris, C. Warner, F. A. Hampton, R. A. Fawcus, W. H. Ogilvie, R. C. Ozanne, W. R. Reynell.

Dressers in the Ophthalmic and Orthopædic Departments.—Messrs. W. S. George, O. G. Morgan, G. T. Foster-Smith, J. A. Ryle (Mr. Eason); N. Garrard, H. C. Godding, D. W. John, A. M. Zamora (Mr. Ormond).

Clerks in the Skin, Nerve, and Children's Departments.—Messrs. A. L. Gardner, L. Milton, W. E. Williams, C. Aldis, A. H. Birks, W. J. D. Smyth.

Obstetric Dressers.—Messrs. G. S. Miller, A. G. H. Moore, V. F. Soothill, H. Webb, W. C. D. Maile, G. D. Eccles (Mr. Targett); W. Robinson, J. F. G. Richards, C. H. G. Pochin, A. B. Danby, G. A. Pratt, G. E. Genge-Andrews, (Mr. G. Bellingham Smith).

Post-mortem Clerks.—Messrs. R. Creasy, L. B. Stringer, T. I Bennett, S. Keith, E. M. Mahon, H. Sharpe, G. A. Pratt, H. C. Rook, W. L. Webb, D. C. Scott, F. Collar.

Surgeons' Dressers.—Messrs. J. A. Martin, E. S. Taylor, T. A. Townsend, M. Z. Hanafy (Mr. Symonds); A. C. Clifford, D. V. Pickering, L. D. Wright, V. Atienza (Mr. Lane); C. H. L. Harper, R. H. Lucas, P. H. Berry, W. R. Pryn (Mr. Dunn); J. W. Kemp, A. M. Henry, A. K. Selim, A. S. Erulkar (Sir A. Fripp).

Assistant Surgeons' Dressers.—Messrs. C. S. L. Roberts, A. H. Taymour (Mr. Steward): C. Lambrinudi, J. York Moore, W. K. McKay (Mr. Fagge); F. V. Bevan-Brown, C. F. Pedley, J. F. Venables (Mr. Rowlands); R. O. H. Jones, F. H. Dodd, P. Savage (Mr. Turner); P. L. du Vergé, C. G. McClymont, P. R. Chevreau (Mr. Hughes).

Medical Ward Clerks.—Messrs. J. R. Barrow-Clough, H. W. Evans, H. Gould, A. V. Moberley (Dr. Hale White); F. W. Lawson, Abd-el-Al, A., A. J. Drew, A. J. E. Smith (Dr. Pitt); A. C. Hancock, H. Mather, R. C. Matson, E. D. Scott (Sir Cooper Perry); C. H. G. Penny, H. S. Groves, F. D. Annesley, W. L. Gwyn-Davies (Dr. Shaw).

Messrs. L. Muir Smith, W. E. Tanner, S. Wilson, F. C. S. Broome, D. R. Jones, A. Wills, H. P. Whitworth, H. H. Elliott, A. N. Minns, T. W. Sheldon, P. R. Boswell, C. Dean, W. D. Galloway, R. J. Hearn, H. L. P. Peregrine, E. C. W. Starling.

Surgical Ward Clerks.—Messrs. G. B. Pritchard, W. A. Young, R. B. Campion, H. L. Messenger, E. R. Bailey, T. R. Trounce.

Clerk in Medical Out-Patients.—Mr. D. W. Jones.

Clerk in the Electrical Department.—Mr. H. G. Crawford.

Clerk in the Light Department.—Mr. H. N. Eccles.

Clerks in the Obstetric Out-Patient Department.—Messrs. W. Matthews, W. C. Whitworth, H. C. Rook, W. L. Webb.

Externs.—Messrs. K. B. Clarke, H. J. Hoby, S. Wickenden, O. R. L. Wilson (February); F. B. Bull, G. W. King, K. J. T. Keer (March).

Pathological Assistant to Surgical Registrar.—Mr. W. Robinson.

Student Clinical Assistants in Bacteriological Department.—Messrs. R. D. Passey, S. Keith.

The following appointments have been made by the House Committee upon the recommendation of the Medical Committee:—

House Physicians.—Messrs. W. T. Clarke (Dr. Pitt); H. T. Depree (Dr. Shaw).

House Surgeons.—Messrs. G. T. Mullally (Mr. Lane); G. R. Hind (Mr. Dunn).

Out-Patient Officers.—Messrs. A. Neville Cox, A. J. McNair, N. Mutch, A. Sandison.

Assistant House Surgeons.—Messrs. A. H. Todd (Mr. Steward); H. L. James (Mr. Fagge); G. Marshall (Mr. Rowlands); F. G. Lloyd (Mr. Turner); E. G. Schlesinger (Mr. Hughes).

Clinical Assistants in Special Departments.—Neurological: Messrs. W. Johnson (chief), W. W. Cook, G. Y. Thomson. *Orthopædic:* W. W. Cook (chief), H. C. Lucey, H. G. Rice. *Throat:* W. M. Mollison (chief), T. B. Layton. *Genito-Urinary:* L. Mandel (chief). *Vaccine:* G. W. Goodhart (chief). *Ophthalmic:* J. S. Bookless.

Naval and Military.

Fleet-Surgeon H. B. Marriott, R.N., to the *Cornwall*, on re-commissioning.

Staff-Surgeon R. W. B. Hall, R.N., to the *Active*, on commissioning.

Staff-Surgeon A. W. Iredell, R.N., to the *Victory*, additional for disposal.

Surgeon G. Moir, R.N., to the *Vivid*, additional for disposal.

Captain H. C. Keates, M.D., I.M.S., has relinquished charge of the duties of Superintendent of the Jullundur District Jail.

Lieutenant M. A. Rahman, I.M.S., has been appointed Specialist in Otology, Laryngology and Rhinology.

Lieutenant H. Stott, I.M.S., to be Captain.

Territorial Forces.

First Wessex Field Ambulance: Lieutenant Richard Eager, M.B., to be Captain.

The following Officers from the Unattached List for the Territorial Forces are appointed, with rank and precedence as on the Unattached List, for service with the Medical Unit of the University of London Contingent, Senior Division, Officers' Training Corps, dated December 16th, 1911:

Lieutenant (Provisional Captain) R. Davies-Colley.

Lieutenant T. B. Layton.

Civil.

Charles E. Price, M.R.C.S., L.R.C.P., has been appointed Medical Officer to Bromley (Kent) Union Workhouse and Infirmary, also Deputy Medical Superintendent to the Bromley and Beckenham Joint Hospital Boards Infectious Diseases Hospital.

Pass List.

Royal College of Surgeons of England.

EXAMINATION FOR THE FINAL FELLOWSHIP, NOVEMBER 23RD, 27TH, 28TH, 29TH, 30TH, & DECEMBER 1ST.

Captain A. J. Hull, R.A.M.C.
H. I. Janmahomed, M.D., B.S.
H. Lee, M.D., B.C.
V. Townrow, M.B., B.S

University of Oxford.

The following degrees have been conferred:—

B.M., B.CH. T. B. Heaton.

The following have been approved in the examinations indicated:—

FIRST M.B.—ORGANIC CHEMISTRY.

E. W. Bowell.

SECOND M.B.—PATHOLOGY.

W. R. Reynell.

FORENSIC MEDICINE AND PUBLIC HYGIENE.

T. B. Heaton. | E. G. Martin.

University of Cambridge.

FIRST M.B., B.C.

PART I.—ANATOMY AND PHYSIOLOGY.

G. L. Attwater. | A. C. M. Coxon.

THIRD M.B., B.C.

PART I.—PATHOLOGY AND PHARMACOLOGY.

V. T. P. Webster, B.A.

PART II.—MEDICINE, SURGERY AND MIDWIFERY.

A. M. Bodkin. | A. C. Jepson.
A. J. McNair.

University of London.

FIRST M.B.

J. A. M. Alcock.	J. W. H. Grice.
*†L. S. Debenham.	T. L. Heath.
T. R. W. F. Figg-Hoblyn.	R. L. Portway.
H. M. Gray.	W. J. Vance.
S. Vidot.	

* Distinguished in Inorganic Chemistry.
† Distinguished in Physics.

M.D.

BRANCH I.—MEDICINE.

C. A. Basker, B.S.	E. C. B. Ibotson, B.S.
W. Johnson, B.S.	E. L. W. Mandel, B.S.

BRANCH IV.—MIDWIFERY AND DISEASES OF WOMEN.

H. C. Lucey, B.S. | W. H. Miller, B.S. (University Medal.)

Society of Apothecaries.

The following has been approved in the subjects indicated:

MEDICINE—SECTION II.

L. K. Edmeades.

New Year's Honors.

The Honor of Knighthood has been conferred on G. H. Savage, M.D., F.R.C.P., Consulting Physician for Mental Diseases to Guy's Hospital.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

A Handbook of Physics and Chemistry. By H. E. Corbin and A. M. Stewart. (J. & A. Churchill.) Fourth Edition. Price 6s. 6d. net.

This edition of Corbin and Stewart's Handbook contains sections on Hydrostatics, Polarization of Light, and Röntgen Rays, besides other additional matter, and is said, in the preface, to have been brought thoroughly up to date. This is not entirely the case, for the table of Atomic Weights, on page 234, is based on H=1 instead of on O=16, and some of the values given are incorrect.

It is of importance that tables of Atomic Weights should be given uniformly, whether in elementary or in advanced text-books, and the table of International Atomic Weights should have been used. The sections of the book dealing with Chemistry, Inorganic and Organic are otherwise good, the Organic Chemistry particularly so.

The sections on Physics are also very satisfactory, but some of the diagrams illustrating the formation of images by mirrors and lenses are not so clear as might be wished. For example, the construction of the virtual image by dotted lines, as in fig. 70, should have been applied also in fig. 69, etc.

Further information as to Colloids would have been advantageous.

Altogether this book may be thoroughly recommended for the First Examination of the Conjoint Board. It is excellently printed, but an index to pages and not to paragraphs would probably be an improvement.

A Manual of Physics for Medical Students. By H. C. H. Candy. (Cassell & Co.), 1911. Price 3s. 5d. net.

This book is an expansion of Page's "Elements of Physics for Medical Students," and is designed to contain the theoretical and practical Physics required for the First Professional Examination.

It appears to be very well suited to the purpose, as the treatment of most of the subjects is accurate and thorough and the illustrations are numerous and good. An excellent and unusual feature is that full descriptions are given of forms of apparatus actually used in physiological work; for example, of the capillary electrometer and the Du Bois-Reymond coil.

The book is more easily readable than most books on elementary Physics, and several useful tables are included. The section on practical Physics is rather too much condensed, and it might be found difficult to interpret the frontispiece of spectra from the description on pages 235 *et seq.*

There are few errors in the book, but on page 4, owing to a misprint, the micron is described as being $\frac{1}{106}$ of a metre.

Papers by Guy's Men.

Kenneth Goadby, D.P.H., Pathologist and Lecturer on Bacteriology, National Dental Hospital: The Relation of Diseases of the Mouth to Rheumatism.—*Practitioner*, January, 1912.

A. C. Jordan, M.D. Cantab., Radiographer to Guy's Hospital: Radiography in Intestinal Stasis (illustrated). —*Lancet*, December 30th, 1911.

R. Clement Lucas, B.S., M.B Lond., F.R.C.S. Eng., Consulting Surgeon Guy's Hospital and to the Evelina Hospital for Sick Children: The Bradshaw Lecture on Some Points in Heredity. Delivered at the Royal College of Surgeons of England on December 6th, 1911. —*Lancet*, December 23rd, 1911.

Lawrie McGavin, F.R.C.S., Lecturer on Clinical Surgery to London School of Clinical Medicine, &c.: Abdominal Section under Spinal Analgesia with or without Anæsthesia, with Notes of Sixty-five Cases.— *British Medical Journal*, December 23rd, 1911.

R. O. Moon, M.D. Oxon., Physician to the Western General Dispensary, Marylebone, and to the Hospital for Diseases of the Heart, Soho: A Case of Paroxysmal Tachycardia.—*British Medical Journal*, December 23rd, 1911.

Owen Richards, M.Ch., F.R.C.S., Surgeon Kasr-el-Ainy Hospital, Cairo: The Routine Use of Spinal Analgesia. A Study of Five Hundred Consecutive Cases. —*British Medical Journal*, December 23rd, 1911.

Eric Bellingham Smith, M.D. Lond., M.R.C.P., Assistant Physician Queen's Hospital for Children: A Type of Nervous Vomiting in Children.—*Lancet*, Dec. 23rd, 1911.

A. H. Tubby, M.S., Surgeon to the Westminster and the Royal National Orthopædic Hospitals: Torticollis or Wry-Neck.—*Practitioner*, January, 1912.

Births.

ATKINS.—On December 27th, at Loughborough, Leicestershire, the wife of Frank Robert Lowth Atkins, of a daughter.

PHILLIPS.—On December 7th, at Bethlem Royal Hospital, London, to Dr. and Mrs. J. G. Porter Phillips, a daughter.

Marriage.

PINCHING—WOODWARD.—On December 27th, at S. Cuthbert's, Kensington, by the Rev. H. Westall, assisted by the Rev. Cyril Butterworth, cousin of the bride, William Guy Pinching, M.R.C.S., L.R.C.P., younger son of Charles J. W. Pinching, M.R.C.S., of 76, New Road, Gravesend, to Dorothy Mary, second daughter of the late Harry Woodward, Solicitor, of 15, John Street, Bedford Row, and Mrs. Woodward, of 12, West Cromwell Road, S.W.

Eds.—E. G. S. and A. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 615.] JANUARY 20, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	21–24
Some Factors in the Prevention of Dental Caries	25–26
Papers by Guy's Men	26
A Case of Pseudo-Chylous Ascites	27–28
Fancy Dress Dance at Guy's	28
Appointments	28
The Treatment of Typhoid Fever. Clinical Lecture by W. Hale White	29–34
Nursing News	34
Guy's Hospital Debating Society	35–36
Correspondence	36–37
Guy's Hospital Pysiological Society	37
Reviews, etc.	37–38
Prize Examinations	38
Students' Calendar, 1912	38–39
Sport	40
Change of Address	40

Passim.

AMIDST the many strange happenings that daily take place in the work of the Hospital, perhaps none is more unaccountable and mysterious than the frequency of what are called coincidences. Some rare disease or accident is seen at Out-Patients or the Surgery, and according to the doctrine of chance it ought to be safe to conclude that no similar case will be seen for a long time. On the contrary, however, it frequently happens that a second, or even a third case of the same kind turns up within a few days, possibly on the same day. Indeed, the dictum that having once correctly diagnosed a rarity it is dangerous ever to diagnose it again seems often disproved by facts, and it would appear more true to say that when once such a case has been seen it is wise to anticipate seeing another in the near future.

SUCH coincidences occur quite inexplicably; there seems absolutely no connection between the cases, nor any reason why more than one should appear at that particular time. In regard to commoner complaints, the same peculiarity is noticeable. Why is it that at Out-Patients case after case of the same type will appear on the same day, the patients coming from widely different localities and presenting no other features in common? The next day there will be a succession of a quite different type, and so these extraordinary "epidemics" go on from week to week. It is a problem that would well repay investigation, and could we but see the hidden cause of these fantastic occurrences we might often be nearer to a true view of the etiology of the diseases themselves.

IN realms other than medical similar facts are known, and everyone has noticed how often some uncommon word, phrase, or event is met with several times in rapid succession in the most unconnected situations. Coincidence is usually much stranger than fiction, but there must be some general principle behind it which, if discovered, would lead to practical conclusions of value in every direction. It would be worth while to attempt to classify and arrange the medical varieties of coincidence, and in the Out-Patient Department there is abundant material for such research.

AT this early period in 1912 we should like to take the opportunity of bringing to the notice of all Guy's men that it is the year of the Biennial Dinner, and that Friday, June the

28th, is the date which has been fixed upon. Dr. G. Newton Pitt has kindly consented to occupy the chair, and the Connaught Rooms have been again engaged for the dinner. In 1910 more than 300 were present, and if only a large number of those who were unable to be present at that dinner will make up their minds to turn up this year, we can promise them that they will spend a very pleasant evening in meeting old friends, some of whom they may not have seen for many years, or even since their student days. There will be ample opportunity to talk, for, as the result of the general consensus of opinion on the last occasion, it has been decided to continue the arrangements whereby the three toasts of "The King," "Guy's Hospital and School," and "The Chairman," will be given without any accompanying speeches. We look forward to hearing once more a continuous buzz of conversation lasting from before the dinner commences until long after it is over, as experiences are exchanged and long-forgotten incidents and anecdotes revived. The price of tickets will be 10/6, exclusive of wine, and a similar arrangement of seating the diners at small tables with a vice-chairman to each will probably be followed. The social success of the dinner will be assured if Guy's men will remember the above date, and do all they can to help by writing to, or looking up, their old friends and making them promise to come if they have not already decided to do so in their own minds.

THE Annual Summary of Anæsthetics given in the Hospital has just been published, showing that in the year 1911 there were 6,787 administrations of a general anæsthetic and four cases of spinal anæsthesia. In addition to these, 5,850 anæsthetics were given in the Dental Department, of which 5,529 were nitrous oxide. It is peculiarly satisfactory to note that there were no cases of death from anæsthetics, and but one case of death during the administration of an anæsthetic. The table showing the different anæsthetics used is of interest, A.C.E. being given in 1,064 cases, chloroform in 1,014, and ether, including gas and ether, in 1,290 cases. The list is headed, however, by the medley "Other anæsthetics, mixtures and sequences," with 2,419 cases, probably owing to the frequency with which the sequence A.C.E. followed by ether is used. About two months ago a much-needed reform was initiated in the registering of anæsthetics whereby, instead of the House Officer responsible for the case certifying the kind of anæsthetic given, the anæsthetist himself was required to report what anæsthetic he had used. Under the old scheme the anæsthetic was not entered on the operation form until the House Officer went round at night, by which time as likely as not he had no very clear recollection as to the precise details of the various anæsthetics given by people other than himself to his cases. In consequence, the anæsthetic column on the operation returns was often a record of what the House Officer thought ought to have been given, and not necessarily of what actually was. Now, however, the anæsthetist himself signs the return at the conclusion of the operation, and in future the statistics as to the relative proportions in the use of different anæsthetics will be undoubtedly accurate.

WITH the anæsthetic summary is published details of operations performed during the year, and this return is of great interest as showing the practical character of the training at Guy's. Out of 6,493 operations performed under anæsthetics, 2,513 were done by Dressers and 828 by House-Surgeons, making a total of more than half the total operations. These operations are, of course, carried out under the direct supervision of the Surgeon-in-Charge, or the

R.S.O., and many of them are of a decidedly minor character, but the figures prove conclusively that the Dressers and House-Surgeons suffer from no lack of practical training. It has always been the legitimate boast of Guy's that its men are eminently practical, and this valuable quality is largely produced by the thoughtful consideration of the Surgical Staff for their House-Surgeons and Dressers.

IT must be an act requiring no small amount of self-repression for a skilled surgeon patiently to teach his dresser or even his H.S. the way to operate. His fingers must often tingle to take the knife himself and with a few swift strokes to perform what the learner is doing slowly and laboriously. It is always so much easier to teach by doing the thing oneself than by unobtrusively guiding the hand of another. The whole tradition of the Hospital is, however, practical teaching, and the self-sacrifice of our surgeons finds its reward in the genuine keenness with which dresser and H.S. alike take their parts in the work allotted them and the subsequent self-confidence and dexterity which they possess when finally launched on the world as representatives of Guy's training.

RESPONSIBILITY is, after all, the great essential in efficient medical training. A man who feels he has no direct personal interest in a case, and that whatever he does or does not do, no difference will result to the patient's comfort or recovery, is unlikely to do his work with genuine keenness. On the other hand, if he be allowed to have some definite share, however small, in the actual practical treatment of the patient, an entirely new spirit possesses him to the benefit of both himself and the patient. This fact is exemplified in the way in which a notorious slacker in such subjects as anatomy and physiology becomes marvellously active and conscientious as soon as he attains the dignity of Ward-clerk or Dresser. Further, real slackness amongst men doing surgical work is extremely rare, for the Dresser has such an intimate connection with his patient, and has so much directly depending upon his work, but on the medical side some men are more apt to be slack for their actual treatment of their patients is necessarily slight.

IT is obviously impossible to allow Ward-clerks to prescribe for ward patients, but would it not be possible for Ward-clerks to dispense the medicines ordered by the H.P.? Dispensing is usually shirked by the average man, and when qualified he knows very little about it, a deficiency which he finds greatly to his discomfort when he first does locums. If, however, as Ward-clerk a man had direct responsibility for the medicines prescribed he would take an even keener interest in his patients, and he would learn a great deal of practical dispensing. No longer would he automatically copy into the report: "Mist. Acidi Co., t.d.s." without any real knowledge of the constituents of the mixture. Instead, he would realise the different drugs utilised and be more disposed to inquire into their actions and reactions. Of course, drugs required in an emergency could not be made up by Ward-clerks, but in the ordinary routine treatment of medical cases there seems to be an opportunity for at the same time making dispensing a more interesting subject, and also adding to the personal responsibility and therefore the keenness of the medical Ward-clerk.

WE are asked to announce that the Annual Dinner of the Oxford and Cambridge Club will be held in the Connaught Rooms, Trocadero Restaurant, Piccadilly, on Friday, January 26th, at 7.30 p.m. The price of tickets will be 7s. 6d.,

and Dr. Newton Pitt has kindly consented to occupy the chair. The Secretaries, Messrs. J. G. Saner and W. G. Reynell, will be glad to hear from those intending to be present, and it is hoped that Oxford and Cambridge men will turn up in force so as to ensure a thoroughly enjoyable evening.

APPARENTLY there are still some places left where medical men are scarce and where an enterprising doctor can find opportunity for remunerative work comparatively free from cut-throat competition. Messrs. Frost & Shipham, of Perth, West Australia, have written asking for young medical men to set out for that colony, and holding forth considerable expectation of success awaiting them at their journey's end. In their letter they state that West Australia is a place which is rapidly going ahead, with an increasing population, but so far doctors are few and far between. There seem to be four to six vacancies in the profession there which offer salaries of from £300 to £500 a year, and which would be very suitable for young, energetic, recently-qualified men. Should any care to take advantage of the opportunity, the firm will be pleased to hear from them, and will endeavour to have an appointment ready for them to take up at once. It is, of course, a case of first come, first served, and if any Guy's man with a desire for colonial practice decides to settle in West Australia, he would be well advised to make his arrangements as speedily as possibly before the colony has time to resemble the Mother Country in the multitude of its physicians, and also, perchance, in Insurance Acts.

AMONGST recent military promotions we note that of Major Hind, of the Royal Garrison Artillery, to be Brevet-Lieutenant Colonel. Lieut.-Col. Hind commenced military service in 1879 and served as Surgeon-Lieutenant and Captain in the Shropshire Royal Artillery Volunteers. In 1910 he commanded a section of the battery in the National Artillery Competitions and won the King's Prize for heavy batteries.

WE would remind readers of the GAZETTE that the Residents' Christmas play "Mactreth" will shortly be published in book form at the price of 2s. 6d. It has been decided to publish the music with the book, which we feel sure will please the many admirers of Mr. A. L. Gardner's tuneful melodies. It will greatly help those responsible for the publication if all Guy's men and nurses desiring copies will send their names and addresses to the Editor of the GAZETTE. With "Macbeth" to be bought for 3d., half-a-crown may seem a large sum to pay for "Mactreth," but the relative merits of the two plays should be borne in mind. (Or not, according to taste.—Ed., G. H. G.)

Pass List.

Cambridge University.

The degree of M.D. has been conferred on the undermentioned, dated December 8th, 1911:—

W. Tyson, B.A., B.C.

Change in Spelling of Name.

From *The Times* of January 9th, 1912.

I, Hildred Bertram Carlill, late of 67, Wimpole Street, Cavendish Square, at present residing at 22, York Street, Portman Square, in the County of London, Doctor of Medicine, hereby give public notice that I have *RESUMED* and intend henceforth to use upon all occasions the Spelling of my Name as above in lieu of the spelling Carlyll which I have used for a considerable time, and that such resumption of the original spelling of my name is formally declared and evidenced by a Deed Poll under my hand and seal dated the 8th day of January 1912, and intended to be enrolled in the Central Office of the Supreme Court of Judicature.

Dated the 8th day of January 1912.

Signed by the said Hildred Bertram Carlill in the presence of Patrick H. Hepburn, Bird-in-Hand Court, Cheapside, E.C., Solicitor.

H. B. CARLILL.

Some Factors in the Prevention of Dental Caries.

Précis of Paper read before the Dental Society by R. D. TANNER.

MUCH has already been said and written on the subject of dental caries, but this disease, which has been called the "disease of the people," is of national importance, and the principal factors concerned in its causation and prevention, and the progress being made towards prophylaxis, justify further consideration.

Dental caries appeared early in the history of man. Its advent coincided with man's gradual departure from a state of nature, and increased in ratio to his progress in that of civilisation. Though the origin of dentistry is lost, it is evident that man endeavoured to combat the disease, and it is thought that as early as 3000 B.C., Egyptian physicians applied remedies for toothache. The statement that mummies at Thebes exhibited gold fillings is disputed, on the grounds that a thin gold plate was used by embalmers to cover the teeth before burial. The first written attempt to show the cause and explain the treatment of caries is dated 1530, and the views expounded in it differ little from present day ideas.

Authorities now affirm that the presence of caries in modern races is due to the soft character of the food consumed, and to the increasing use of carbohydrates, notably sugar, which, except in the form of honey or fruits, is a modern introduction.

Animals in a natural state do not suffer from caries, but when in captivity they are frequently affected. It has been proved, however, that the teeth of man are not degenerating, but have actually a higher degree of calcification than those of animals.

Caries of enamel and dentine is now generally acknowledged to be due to a dissolution of the inorganic portion by acids, which are mainly products of the action of micro-organisms upon fermentable carbohydrates lodged in the interstices of the teeth. The existence of an abnormal lodgment of carbohydrates is necessary before caries can develop, and the following five factors are responsible for this accumulation of fermentable food-stuffs: Want of cleansing; the wearing of dentures and regulation appliances; the presence of fissures; irregularities in arrangement; and abnormal conditions of surrounding soft tissue.

Stomatitic teeth and crowded and irregular teeth are important factors in the retention of carbohydrates, and should be considered here. Hypoplastic teeth are the outcome of exanthematous diseases, such as measles, and, indeed, any interference with the nutrition of a child in early life is likely to produce them. Malnutrition can be traced to gastro-intestinal disorders, caused by dirty feeding bottles and inattention to oral cleanliness. Crowded and irregular teeth, the result of poorly developed jaws and arches, predispose to caries by inducing accumulations of food and making cleansing difficult. In a normal child ill-developed jaws are caused by incorrect feeding and mouth-breathing. Breast-fed children have wider arches than bottle-fed, and later a diet which necessitates thorough mastication is essential to proper growth of the jaws. Nasal obstructions, such as adenoids, encourage mouth-breathing, and should be removed.

Occasionally a case of immunity from caries will occur, even where the use of the tooth-brush is unknown. On the other hand, the disease is often present where great care has been taken of the teeth, and though such reasons as heredity, structure of the teeth, environment, the development of an anti-toxin on the part of the body, and bacterial properties of the saliva, have been cited to account for this diversity, the problem is still to be solved. It is believed now that no more than a predisposition to caries or any other disease is inherited. As to structure, though the stability of the compound formed from lime salts and organic matrix is important, the immunity of the tooth chiefly depends on external conditions, such as the degree of concentration of the acid and the length of time in which it is allowed to act.

It seems probable that a relation exists between the amount of sulphocyanides in the saliva and susceptability to caries. Possibly the parotid secretion provides antitoxic bodies, which move to the centre of acid concentration and destroy the groups of acid-forming bacteria.

Now, without further digression, we must deal with the greatest factor of causation and prevention. This is diet. The ill-effects of carbohydrates, which ferment in the mouth into weak acids inducing disease, are to some extent neutralised by the alkaline medium which results from proteid foods. Therefore, the relative amounts of starchy and proteid foods consumed bear upon one another.

The establishment of an important natural self-cleansing process depends largely upon the fibrous elements in the diet, for soft foods block the flow of saliva, encourage the growth of micro-organisms, and confine the acids to one spot, and it is only when fibrous food is forced between the teeth in vigorous mastication, which also increases the flow of saliva, that these carbohydrates are dispersed. Saliva from the parotid gland cleanses the upper molar region, and the sub-maxillary and sub-lingual secretions do the same for the mandebular teeth. The mucous secretion lubricates food and teeth and protects the enamel.

Possibly this natural cleansing power of the mouth is weakened by the increased number of meals in the present day, for if a definite quantity of saliva is secreted during the day, and poured out after each meal, then constant meals mean a diminution in the amount available for each.

This natural cleansing is greatly assisted by artificial means, which must not be neglected. The teeth should be brushed after every meal, or at least rinsed with water, and after the last meal of the day, which should contain only a small proportion of carbohydrates, a specially careful cleansing is necessary.

In conclusion, let us recapitulate the most salient preventive measures at our service:—First, hygienic surroundings and wherever possible breast-feeding; later, a diet which will enforce vigorous mastication; a scrupulous attention to the dental toilet; and, finally, a knowledge of the few simple rules by which the disease may be supressed.

Papers by Guy's Men.

A. E. Boycott, M.D.: Sahli's Hæmoglobinometer.—*Proceedings of Royal Society of Medicine.* Vol V., No. 2.

L. A. Dunn, M.S., F.R.C.S.: Retrograde Enteric Intussusception.—*Proceedings of Royal Society of Medicine.* Vol. V., No. 2.

J. W. H. Eyre, M.D., M.S.: The Incidence of Mediterranean Fever in Malta and its Relationship to the Size of the Goat Population.—*Lancet*, January 13th, 1912.

W. Sampson Handley, M.S., F.R.C.S.: Ivory Exostosis of the Frontal Sinus.—*Proceedings of Royal Society of Medicine.* Vol. V., No. 2.

A. C. Jordan, M.D.: Radiography in Intestinal Stasis.—*Ibid.*

E. G. Graham Little, M.D.: A Case of Vitiligo.—*Ibid.*

P. H. Ward, M.R.C.S., L.R.C.P.; A Case of Blackwater Fever.—*South African Medical Record*, November 11th, 1911.

H. B. Kirkman, F.R.C.S. Edin., L.R.C.P. Lon.: A Personal Experience of Aspirin Poisoning.—*South African Medical Record*, November 11th, 1911.

W. M. Mollison, M.C., F.R.C.S.: A Case in which a Cholesteatoma "performed" The Radical Mastoid Operation.—*Proceedings of Royal Society of Medicine.* Vol. V., No. 2.

Major C. E. Pollock., R.A.M.C.: The Clearing Hospital and the Evacuation of Sick and Wounded from an Army in the Field.—*R.A.M.C. Journal*, January, 1912.

E. Bellingham Smith, M.D.: The Distribution and Excretion of Radium, and Its Emanation after Internal Administration.—*Quarterly Journal of Medicine*, January, 1912; and Congenital Word Deafness and other Defects.—*Proceedings of Royal Society of Medicine*, Vol. V., No. 2

A. H. Tubby, M.S., F.R.C.S.: An Address on Indications of Surgical Interference in the Treatment of Tuberculous Joint Disease in Children. Delivered in opening a discussion in the Section for Diseases of Children.—*Royal Society of Medicine*, on December 15th, 1911. *Lancet*, January 6th, 1912.

W. Hale White, M.D., F.R.C.P.: Three Cases of Erythrœmia (Polycythœmia). In One of which the Total Volume of the Blood was Estimated.—*Lancet*, January 6th, 1912.

MEMORANDA.

H. Shaheen: Effect of Cane Sugar on the Uterine Muscles.—*British Medical Journal*, January 6th, 1912.

Harford Edwards: Nervous Retention of Urine.—*British Medical Journal*, Jan 13th, 1912.

A Case of Pseudo-Chylous Ascites.

BY EDWARD M. MAHON & J. H. RYFFEL.

PATIENT, aged 26, was a big well-made woman, and the mother of two children, the youngest being three years old. In February, 1910, she had an attack of acute nephritis with anasarca and ascites, for which she was treated in Guy's Hospital. Her abdomen was explored on two occasions, but no fluid was withdrawn. After ten weeks treatment she was discharged without any anasarca or ascites, but she was still passing 5 parts per 1000 of albumen in her urine. Her nephritis continued in a chronic form and again became acute ten weeks before her present admission. She was treated by her own doctor for two months, and was finally sent into Guy's Hospital, and came under the care of Dr. Hertz, who has kindly allowed the publication of this paper.

On admission (August 1911) there was a large amount of anasarca and well-defined ascites; acupuncture of the legs was performed, and at a later date the abdomen was tapped, and 15 pints of a white opulescent fluid were run off. The patient made very little progress, and finally died in coma a month after admission. The urine was scanty, the maximum amount passed in 24 hours being only 14 ounces; it contained casts and albumen, which averaged 18 parts per 1,000, but a week before death this amount was increased to 24 parts per 1,000, and remained at this figure.

A second specimen of ascitic fluid was obtained after death, 800 c.c. of milky fluid being drawn off from the abdominal cavity.

Nothing was discovered at the autopsy which would in any way account for the milky character of the ascitic fluid. The kidneys were very large and abnormally lobulated, together weighing 556 gms.; the capsules were thin and stripped easily. The surface of the cortex thus exposed was smooth and pale with dilated blood vessels. The ratio of the amount of medullary substance to that of the cortex was normal; the pyramids were widely separated and the medullary rays were increased in size and presented a fatty appearance. The kidney substance immediately adjacent to the pyramids showed signs of fat necrosis.

Unfortunately, only a small quantity of the ascitic fluid was kept from the first tapping, and this amount was insufficient to determine whether the fluid was "chylous" or "pseudo-chylous." Its specific gravity was 1,007, and its general characteristics were apparently identical with those of the fluid obtained after death. A few lymphocytes, a small quantity of sugar, and two parts per 1,000 of coaguable protein were present.

The second specimen of the fluid measured 800 c.c., and coming from a corpse 15 hours after death, unfortunately contained débris and adventitious fat. After filtration it appeared to be more opalescent than the first specimen. It had the characteristic smell of a corpse, but no other odour. It was alkaline to litmus, contained 3 parts per 1,000 of coaguable protein, and had a specific gravity of 1,007. Alcohol produced a heavy precipitate, but the opulescence was unaffected. Hydrochloric acid had no marked effect, and Sodium Hydrate only cleared the fluid to a slight extent. Neither acetone or di-acetic acid was present.

On centrifugalisation there was no deposit with the filtered fluid, but quite a large one with the unfiltered, and on microscopical examination minute granules were seen, but no fat globules; lymphocytes and red blood corpuscles were also seen in the filtered fluid, while in the unfiltered specimen there were large quantities of red blood corpuscles, leucocytes, lymphocytes, and epithelial débris. The filtered fluid on standing formed no creamy layer. Continued shaking with much ether caused it to become distinctly clearer, the ether yielding a few oily globules on evaporation. When caustic soda was added before shaking with ether the clearing was more marked; but still not complete. The liquid, which was slightly alkaline to litmus, did not coagulate on heating until acetic acid was added, when a definite coagulum formed. A precipitate formed on dialysis and on half saturation with ammonium sulphate. The filtrate from this latter precipitate was quite clear, while the precipitate formed with water a white opalescent liquid which passed through filter paper unchanged, as did the original fluid. The fluid reduced Fehling's solution to an appreciable extent; this was due to the presence of sugar, not of mucoid.

The total solids amounted to 2·05 per cent., fat to 0·116 per cent. This fat was mainly lecithin, as shown by its solubilities, and by its containing phosphoric acid.

The nature of milky ascitic fluids has recently been investigated by Mackenzie Wallis and H. A. Schölberg (*Quarterly Journal of Medicine*, 1910, iii. 301, and 1911, iv. 153.) Milky ascites is divided into two groups:—(1) Chylous Ascites, in which the milkiness is due to chyle, and (2) Pseudo-chylous Ascites, in which the milkiness is not due to chyle. There are two varieties of Pseudo-chylous Ascites:—the first is "fatty," and the fat contained in the fluid is derived from degenerated cells; the second variety is "non-fatty," the milkiness is mainly due to minute granules, which are said to consist of a globulin-lecithin compound.

The characteristics of the fluid in non-fatty pseudo-chylous as opposed to chylous ascites are:—(1) The presence of minute particles, which do not separate on standing or centrifugalisation; (2) the relative absence of fat globules; (3) the low solid content; (4) the low fat content; and (5) the presence of lecithin, which forms a considerable part of the fat present. The opalescence of the liquid in non-fatty pseudo-chylous ascites is removed by filtration through a Pasteur candle, or by filtering off the precipitate produced by dialysis, or by half saturation with ammonium sulphate. The

material so removed consists of globulin and lecithin, and yields an opalescent fluid on mixing with water. The cause of the opalescence would therefore appear to be due to the presence of globulin and lecithin. Neither lecithin alone nor globulin alone produces a similar effect.

The condition of milky ascites is not a common one, Wallis and Schölberg having traced 173 cases of chylous and pseudo-chylous ascites during the past fifty years; of which 71 cases probably belong to the pseudo-chylous type. Carcinoma was associated with 19 of these, tuberculosis with 10, cirrhosis of the liver with 15, and nephritis with 18.

The properties of the fluid in the present case were in every particular the same as those mentioned above as characteristic of non-fatty pseudo-chylous ascites, so that the case was evidently one of "non-fatty pseudo-chylous ascites," associated with nephritis.

Fancy Dress Dance at Guy's.

THE Court Room on Tuesday evening last presented a most beautiful and animated appearance. Entering from the cheerless, rain-soddened front square of the hospital one found a roomful of happy boys and girls in all the splendour and delightful variety of fancy dress, which gives to boys as well as girls the privilege of wearing all the colours of the rainbow. Dainty ladies and gentlemen of the XVIIth and XVIIIth centuries were to be seen there, a "bookie" (very XXth century), a witch, a merry widow, golliwogs, gallant naval officers, jesters in motley, a Cinderella, a young Greek hero, two little bathing girls, two little Quaker girls, and lots of others. They danced splendidly, and made a brave show. Seeing it, one felt optimistic as regards the coming generation of men and women.

It had been arranged that the dancers should be between the ages of twelve and eighteen, and if the upper limit was not too rigidly adhered to in the case of a few of us, at any rate we all *felt* well below it. Each one whose costume allowed it showed the happiness with which everyone doubtless was infected. Even the chaperones and spectators, poor mortals condemned to wear ordinary dress and not allowed to dance, caught it. It spread from the Court Room to the drawing-rooms, and especially down the stairs to the dining-room of the Superintendent's House, which Sir Cooper and Lady Perry most generously threw open to the company. It became pandemic, and found expression in two-steps and valses and Highland schottisches and lancers, and not least in "Sir Roger de Coverley," which made an effective finish.

This juvenile fancy dress dance, with all its healthy happy boys and girls, gained a new aspect when one realised that it was held in aid of a fund for the cot in Esther Ward which is supported by the junior members of the Guy's Hospital Ladies' Association, and is designed to do something to relieve the sickness and suffering of those less fortunate children we know of. The Ladies' Association is to be congratulated on its Junior Members Branch. It may not be able to collect at the rate of £100,000 in 12 days, but it does what is far more important: it arouses in those who are still growing up an interest in the hospital, and a desire to do personal service in its behalf which they will never lose. If, sometimes, provided it is not always, the interest and personal service take the form of a fancy dress dance, so much the better.

We are very pleased to hear from the Hon. Secretaries of the dance held last Tuesday—Mrs. Fagge and Mrs. Arthur Ormond—that it was an undoubted success from the financial point of view. That it was so from every other point of view we can attest from personal observation. Its success, as a whole, must have been largely due to the energy and organising ability of the hon. secretaries, and of the ladies of the executive committee:—The Viscountess Goschen (who acted as hostess), the Hon. Mrs. Molyneux, Lady Perry, Mrs. Pye-Smith, and Mrs. Lauriston Shaw. Most valuable help was also given by Mrs. Philip Turner, Mrs. Mollison, Mrs. Cameron, Mrs. Davies-Colley, Mrs. Chapple, and several other ladies who contributed in various ways to the success of the dance and the enjoyment of the dancers. A. N. C.

Appointments.

The following appointments have been made by the House Committee upon the recommendation of the Dental Committee:—

Dental House Surgeons.—Messrs. H. L. Meyer, H. O. Shore, D. Wain.

Assistant Dental House Surgeons.—Messrs. S. W. Bevis, T. E. Henderson, W. S. Stranack.

Assistant Demonstrators of Dental Mechanics.—Messrs. M. Schneider, M. F. Hopson.

Assistant Demonstrators of Dental Metallurgy.—Messrs. A. C. Achner, C. H. Edwards.

Naval and Military.

Surgeon H. E. PERKINS, R.N., to the *Hibernia* on re-commissioning.

Surgeon Q. H. RICHARDSON, R.N., to the *Natal* on return to England.

Surgeon-General Sir F. W. TREVOR, K.C.S.I., C.B., M.B., K.H.S., is placed on retired pay 1st January, 1912.

Civil.

H. L. HOPKINS, M.B., B.S., to be House Physician at the Royal Derbyshire Infirmary.

T. MORGAN, M.R.C.S., L.R.C.P., to be Medical Officer of Health, Llandovery Rural District.

The Treatment of Typhoid Fever.

CLINICAL LECTURE BY W. HALE WHITE.

GENTLEMEN,—It so happens that we have in the ward at the present time a number of cases of typhoid fever, and with one exception they have been so mild that they have not in any way tried our skill in treatment. Therefore, it seemed desirable this afternoon to talk about the treatment of the condition, and so complete the points of the cases now in the wards. If you went into the wards and saw these half-dozen patients with typhoid fever, you would say that there was no treatment being adopted at all. My answer to that is, let the typhoid fever patients treat themselves, and then notice the difference in the mortality. It is quite true that we seem to be doing nothing active, but we are doing as much for these people in putting them in the right way to get well as the man who steers a ship is doing for the ship.

The first thing to think about when you see a person with typhoid fever is that he must go to bed. All abdominal conditions are best in bed —typhoid fever particularly. Why that should be I do not quite know. Sir William Jenner used to say that wherever a typhoid fever patient was when he was taken ill, there he should stay until he was well, however disagreeable and uncomfortable it might be for him, even in country lodgings. I have often told you of a striking case illustrating this. An old Guy's man, living about thirty miles out of London, asked a friend down to spend a week-end with him. The friend went on a Friday, and on the following day he was seedy, and on the Sunday he was more seedy, too unwell to come away, and it was found that he had typhoid fever. I saw him. He discovered that his friend's wife was expecting to be confined shortly, and that it would therefore be very inconvenient for him to remain in the house. His friend insisted on his remaining there, and I aided him in that as far as I could, but neither of us could persuade this man. He said it was monstrous of him to thrust himself on his friends like that, and that he would come up to the hospital. He was driven up to Bright ward, where he soon died. He seemed to go downhill from that journey, but there was nothing found post-mortem to account for it. That illustrates very well the importance of keeping these patients in bed. It has been suggested that bed is so necessary because the temperature is raised, and that means the expenditure of energy, and therefore they have no energy to get about, but the extra number of calories required by a man to raise his temperature a few degrees is not very much, so it is not a question of the extra energy to raise his temperature which makes it desirable for him to go to bed. I suspect it is the poisons which result from the typhoid fever which circulate in the blood and damage the heart.

Having put your patient to bed, naturally the next thing which comes to your mind is, what diet should we give him? There is no doubt that the principal part of the diet must be fluid, and that is so for many reasons. In the first place, a man with fever usually has a low blood pressure, so that it is desirable he should have a good deal of fluid. Next, his mouth is dry, and he cannot masticate solids. He is thirsty, and, of course, fluids are good for that. Lastly, he cannot swallow easily, and so fluids are better for that reason. The next point to which the diet must conform is that it shall be easy to digest. It is notorious that the gastric and salivary secretions are at a low ebb in pyrexia; a typhoid fever patient has prolonged pyrexia. Milk, given in small quantities at frequent intervals, is easy to digest, and therefore milk is a suitable diet for these patients. Until the last few years, milk was the only diet given to patients with this disease. But that, as I shall show you in a minute, is wrong. Think. A man who is up and about and at work requires, say, 2,500 calories a day to keep him going. A man with typhoid fever probably does not require much less. It is true that he is not doing any work, because he is in bed; but, on the other hand, his temperature is higher, his heart is beating faster, and he is breathing more rapidly; so that in some directions he is doing more work, even though he is not doing manual work. So probably we shall not be far wrong if we assume that a typhoid fever patient

requires 2,000 calories of energy a day to keep him as well as can be expected. You cannot give a man more than three pints of milk a day with comfort; if he has more he gets nauseated. And three pints of milk yield only 975 calories, so that such a man is on starvation diet. I have little doubt that the restriction to a milk diet has been the turning point against some patients who have lost their lives from typhoid fever. Years ago typhoid fever patients were sometimes fed largely on whey, with the idea of not irritating the bowels. The amount of energy in three pints of whey is almost microscopical, and starvation must have had a good deal to do with the death of those who died while on a whey diet. Those who have clerked for me know that I constantly point out to you at the bedside the fault of an entirely milk diet, and I have also indicated to you many ways in which you can overcome the difficulty. The best way to get over the difficulty is to add carbohydrates to the milk, especially sugar, because the body then has not the trouble of converting starch into sugar; moreover it is palatable and easy to digest. You have also seen me prescribe maltine for patients in bed with typhoid fever. One drachm of maltine is worth 60 calories; 1 drachm of honey is worth 70 calories. So if you get your patient to take 1 oz. of maltine in twenty-four hours, you will be adding 480 calories to his 975 which his milk is giving him; and that brings us some way towards the 2,000 he should have. That is a great improvement on milk only. A gramme of sugar is worth about 4.1 calories; an ounce is almost 30 grammes, so if you can get the patient to take 1 oz. of sugar in twenty-four hours, you are giving him in this way 123 calories. If you can get him to take 2 ozs. of sugar so much the better. So by ringing the changes on these easily digested forms of carbohydrate, you add greatly to the 975 calories of the milk. I am accustomed to get in the sugar by stirring lactose into the milk; it seems natural to do that, because the lactose is the sugar natural to milk. I do not mind it, but some patients complain that it is disagreeably sweet. You may ask, cannot you help them towards the 2,000 calories by giving fats? The objection to giving fats is that fever patients digest fat badly. You yourselves have an instinctive feeling that you would turn from fat if you had a high temperature. Of the fats which you can give, cream is the best. That has the advantage over the carbohydrates that it has double the energy yield. Your patient is having 975 calories by his milk, and if we gave him an ounce of honey that would bring it to 1,400, if we gave him also some cream, he would not be very far short of his 2,000. It is because of its sugar that some people are accustomed to give chocolate. It is very good in typhoid fever, and I have no objection to it at all; but it is more scientific to use carbohydrates of which you know the precise energy yield. Another advantage of carbohydrates is that the ingestion of them spares the protein tissue in fever. In animals having artificially induced fever, experiments show that if you give carbohydrates the protein waste is much less than it was before the carbohydrate was given. So that on all grounds it is good to give carbohydrates. It is not much use giving more protein than is contained in the three pints of milk, because protein is more difficult to digest, and in the next place, there is a considerable protein waste in the body during fever. Therefore, the body is already flooded with the products of protein-breakdown, so it is undesirable to increase the diet much in this direction.

Let us turn now to the amount of fluid that should be given. We who have not fever drink over two pints of fluid a day, and three pints is not enough for a man with fever. So you should give him, at frequent intervals, barley water; it slakes his thirst and makes him more comfortable. Milk has the disadvantage that it is very monotonous, and, therefore, other fluid in addition is very welcome. I have had what I may call, now that it is over, the good fortune to have had typhoid fever, so I can appreciate the suffering of those who have got it, and I can imagine nothing more monotonous than a long milk diet. I always say that one of the happiest days of my life was when I was first allowed fish after a month on milk. This monotony of the milk can be got over somewhat by flavouring with a little black coffee, or tea, or vanilla. I prefer the coffee. One objection to milk is that it curdles in the stomach. We may easily prevent that by adding two grains of

citrate of soda to each ounce of milk, or you can peptonise the milk. The former is the better, because peptonising gives it a disagreeable taste. The advantage of such a diet as I have sketched to you is best seen in a large institution. If you are in charge, ever, of a fever hospital, with hundreds of cases of typhoid fever, you almost must have a rigid diet. The reason is not therapeutical, it is entirely domestic; and it is this, that you cannot get the patient's friends to appreciate the importance of diet unless you have strict rigid rules. I have myself found, when making a post-mortem on a case which died in typhoid fever, watercress in the peritoneal cavity. Such things make you declare you will never again depart from rigid rules about diet. Only the other day we asked a Sister whether it was common now, after visiting days, to find apples in the lockers of patients with typhoid fever. She says they are found. So we are strict as to diet for disciplinary reasons. But, therapeutically, you need not be so strict so long as the food is largely fluid, easily digested and yielding sufficient energy, and is of such a nature that it will be fluid by the time it reaches the small intestines. When you can depend on the nurses looking strictly after the patients' food you can allow more latitude. You may allow a cup of tea, and this, especially to women, is very comforting. If you go into the ward at the present time you will find our patients on other things besides milk. A few minutes ago I saw a man who has typhoid fever eating an egg and bread-and-butter. All that will be fluid by the time it reaches the small intestine. He was washing it down with milk. Here is a diet which is popular for typhoid fever patients in Russia:—7 a.m., the patient was allowed tea with a roll. At 8, oatmeal or barley water or liquid porridge, with butter and one or two lightly-boiled eggs. Later, milk with a roll; and at 12.30, chicken soup and chicken or beef tea, and semolina pudding. 8 p.m., a small piece of chicken, and milk with a roll, and during the night coffee or tea with a little brandy. In addition to that the patient had egg and brandy every two hours. All that would be fluid by the time it reached the small intestine. At the Massachusett's General Hospital Dr. Shattock gives milk and cream, egg and butter, Horlick's food, Mellin's food, and maltine. In this last diet there is a large amount of carbohydrate. Let us now contrast this fuller kind of diet with the old-fashioned three pints of milk. We find it is to the benefit of the fuller diet. On the fuller diet the mortality is 9·47 per cent., and on milk diet it was 10·5 per cent. That is not at all surprising when you remember the value of the milk, 970 calories when you want 2,000. What people frequently forget in treating gastro-intestinal diseases is, that although it is a good thing to rest the stomach and intestine so as to allow the ulcers to heal, no ulcer will heal if the patient is starved. That is very well brought out in contrasting these figures. On a liberal diet there were only 4·77 per cent. of cases had hæmorrhage, whereas on the milk diet there were 8·8 per cent., double the number, you see. You would expect ulcers to heal more rapidly on a good diet. The perforations were 1·37 per cent. on the liberal diet, 2·4 per cent. on milk only. If you starve a patient you cannot expect his ulcers to heal.

Talking of food leads one to speak of alcohol. You know alcohol is a capricious substance; because when people have pyrexia its effects on them are variable. People are not the same in this respect. Some are made wakeful by alcohol; their pulses are made rapid. In some it makes the heart beat feebler. Some sleep after it; in some the pulse rate falls and the heart beat becomes stronger. So if you find your patient is better for it give him alcohol. It has this great advantage, that it is a food which requires no preparation by digestion. A fluid ounce of absolute alcohol is worth 200 calories; so, as brandy is half water and half alcohol, a man taking two fluid ounces of brandy is taking in 200 calories of energy. See what a help that may be for such a patient. But do not forget many patients are made worse by it; they are kept awake, their pulse is irregular, the heart beat is not so strong, and digestion is hindered. If some day some means could be found of neutralizing or destroying the property of our alcoholic drinks to cause cirrhosis, indigestion,

and peripheral neuritis, and only the food value was left, it would change the whole human race, for we should have a food which required no previous digestion, dinner parties would vanish, and the whole aspect of civilization would be altered.

I suppose the next thing which will strike you is, shall I treat the temperature? In most fevers it is undesirable to treat the temperature. Many believe that the temperature is a protective mechanism. We have not time to discuss this afternoon whether it is or not; but, clinically, we know it is often a bad thing to try and treat it. There is no doubt that, provided the temperature has not reached a dangerous height in pneumonia, the higher the temperature the better the patient. The percentage of recoveries is higher when the temperature is between 103° and 104° than it is when it is only from 100° to 101°. Typhoid fever seems peculiar, because there appears to be no doubt, as tens of thousands of cases have now been collected, that it is better if the temperature is just under 103°. Why that should be so I do not quite know, but we have got to remember it as an arbitrary fact. The actual mortality has been reduced in many large institutions by keeping the temperature at that point, by about 6 per cent. to 8 per cent. The next thing I have to tell you is how to do it. The simplest way of all is to sponge the patient. In a child that often suffices, but it is not generally for an adult. There is a little girl in Miriam Ward in whom the temperature has been kept at about that point by sponging her occasionally, and by putting over her a cradle and suspending from that cradle some bags full of ice. A child has a large surface compared with its bulk, so it looses heat readily. You often give an adult with typhoid a bath. Put him in the bath at a temperature of 90°, he being naked. You can carry him from his bed in a sheet and drop him into the bath sheet and all. Then cool the water by putting pieces of ice into it, but do not bring it below 70°. Take the patient out when his rectal temperature has fallen 3° below what it was when you put him in the bath, provided always that it never falls while he is still in the bath below 101·5°. When taking him out dry him over very quickly, and put him back to bed between blankets. He often shivers for a while after this; if so, apply some hot-water bottles. You will find it better to give the bath whilst the temperature is actually rising, rather than waiting until it gets to its height. Do not have a fixed rule as to when to bath a patient. It is as reasonable as if you were to have a fixed rule to give digitalis to all patients with mitral regurgitation. The drug would be thrown away if the heart of the patient were compensated well. If the typhoid fever patient has a good pulse and he is not delirious and has no particular headache, and seems pretty well, do not give him a bath even if his temperature is 103° or 104°. But if he is delirious and his pulse is falling and he is somnolent, give him a bath, even if his temperature is only 102.5°. If you bathe such a patient his delirium will pass away, his heart will increase in strength and the pulse will become regular. Seeing these cases now in clinical ward, you will not have any conception how ill typhoid fever patients may be. I have had cases who have required 30 or 40 baths. You must have very efficent nurses. In a private house a patient who needed many baths would require four nurses, two for the night and two for the day. There is no disease in which good nursing pays better than in typhoid fever. In a private house the bathing is often a matter of difficulty. The bath is usually against the wall, so that you cannot get on either side of it to drop the patient in; often it is not on the same floor as the bed. Then you can give an efficient bath by putting blocks under the legs of the head of the bed, placing a large mackintosh under the patient, banking it up on either side with pillows, then pouring water over the patient from the top of the bed and letting it run out at the other end into a tub which has been placed there. When that is done it is well, if possible, to have two beds in the room, one for the purposes of the bath, and the other for placing the patient in after it. Never give these cases antipyretic drugs.

With regard to the bowels, some patients have exhausting diarrhœa. When that is the case, look at the motions. Often you will find

curds in them. They are a frequent cause of the diarrhœa. If they are present, you should peptonise the milk, or citrate it, and the diarrhœa will usually then cease. Sometimes patients with typhoid fever suffer from constipation, and then you will give an olive oil enema every second day. That will nearly always get rid of that difficulty. You will be on the look out for bed-sores, and always keep the mouth clean. A very good mouth wash for this purpose is 1 in 500 formalin, flavoured with tincture of myrrh.

The only complication we have had in clinical ward is that one of our patients has had intestinal hæmorrhage. The treatment for that is simple and clear. Nobody in his senses would do anything surgical for it. What you can do is to paralyse the gut, and so keep it quiet, and then the bleeding will usually stop. Give opium or morphia for this purpose, I do not care whether by the mouth or per rectum. Many give a starch and opium enema, and it is very good treatment. To the man in the ward we gave a morphia injection subcutaneously. At the same time you had better stop all food. We stopped this man's food for twenty-four hours, and his hæmorrhage ceased.

For perforation there is only one treatment, and that is surgical. It is often difficult to diagnose, and it will help you very much if you do a blood count. If, this evening, one of the clinicals rings me up, saying a typhoid patient has perforated, I shall ask him to do a blood count. When I get here there will be a second blood count, and by the time we get the surgeon we shall know the result of a third. If we find the leucocytosis has been gradually mounting it will be virtually a proof of perforation, and will demand immediate surgery, but, of course, we should pay attention to many other signs which we cannot stop to discuss in a lecture on treatment. The reason it is important to be sure of the perforation is that attacks of cardiac collapse are often mistaken for it. In severe cases of typhoid, about the third week, the heart muscle sometimes seems to suddenly loose strength, and then the patient becomes, usually happily only temporarily, cold and collapsed, and almost pulseless. Considerable skill is then required to know whether the cause of this state is cardiac failure or whether it is perforation. We are to-day talking of treatment, so we cannot discuss the differentiation of these two states. The treatment of cardiac failure is to make the patient warm with hot-water bottles, to give strychnine subcutaneously, and put him at once upon plenty of digitalis, 15 mins. of the tincture every three hours, with strychnine, and 5 grains of caffein, with 2½ grains of salicylate of soda to make the caffein dissolve. It is very rare for patients to die from these sudden attacks of cardiac failure, however alarming the symptoms may be. If you are much alarmed, give the patient pituitary extract subcutaneously. That has a wonderful effect in raising the blood pressure. Sometimes the patients complain they cannot sleep. You can then give bromide, chloralamide, or paraldehyde. You know one of the premonitory symptoms is headache, which is often very severe, and, indeed, excruciating; mine was quite agonizing. The best thing to relieve it is full doses of bromide of potassium. It usually passes away on the tenth to the fifteenth day.

I hope I have shown you that there is something to do in treating typhoid fever.

All our patients but one, at the present moment, who are ill with typhoid fever are children, and so I thought I might tell you of some respects in which typhoid fever in children differs from that in adults. It so chanced that, while I was preparing this lecture, I received from my old house-physician, Dr. Eric Bellingham Smith, who is one of the physicians at the Queen's Hospital for Children, a reprint of his on 100 cases of typhoid fever in children at that hospital. The facts which come out from those 100 cases so correspond with the facts I have observed for myself that I thought I could not do better than give them to you. He notices that in children, as in adults, the great majority of cases occur in September and October, namely 35 per cent. And he tells us what you will see for yourselves if you go into clinical ward that typhoid treats children lightly, and I completely agree with him that children do better than adults, so we nearly always tell

the parents that the children will do well; further, the disease is rather shorter in children than in adults. And I do not remember that any of the children in Clinical complained of headache; and Dr. Bellingham Smith says that in children with this disease headache is rare. Typhoid is often ushered in by diarrhœa in children, and, as we know to our cost, they often suffer from broncho-pneumonia; therefore it is not infrequent to find typhoid fever in children ushered in by pulmonary signs. So be on the look out for that; thinking of it will save you from many mistakes. Occasionally, the children complain of a good deal of abdominal pain, and Dr. Bellingham Smith notices that they frequently waste. I think now that we are appreciating more the importance of food, this wasting can be largely avoided. Our patients at the present have not wasted very much. A minute or two ago I told you that these cases are mild in children, and shorter. It is, therefore, interesting to notice that both hæmorrhage and perforation in children are rare, and that means that the ulceration is not deep. I can only remember having lost one child from hæmorrhage or perforation. The convalescence in children is rapid and uneventful. As the disease is milder in children than in adults, pyrexia is not so high, and it is more irregular, a fact which you can learn for yourselves if you look at these temperature charts.

Nursing News.

MATRON'S OFFICE.

On December 11th, 1911, Miss Claire Hinds, who completed her training in July, 1911, was appointed Sister-in-Charge of the Electrical and Light Department.

On December 15th, 1911, Nurse Windemer, Head Nurse in John, left the Hospital on completion of her three years' training, and Probationer Sime was appointed to succeeded her as Head Nurse.

On December 22nd, Nurse MacManus, Head Nurse in Mary Ward, left the Hospital on completion of her three years' training, and Probationer Gooderham was appointed to succeed her as Head Nurse.

On December 28th, Nurse Eaton, Head Nurse in Addison Ward, left the Hospital on completion of her three years' training, and Probationer Hutton was appointed to succeed her as Head Nurse.

On January 2nd, 1912, Nurse Moriarty was transferred to the District for Midwifery Training, and Probationer Beardshaw was appointed Head Nurse in the Massage Department.

On January 5th, Probationer Masters was appointed Head Nurse in the Surgery on Night Duty.

On January 9th, Nurse Todd, Head Nurse in Esther Ward, left the Hospital on completion of her three years' training. Nurse Hodgkinson, Head Nurse in Victoria Ward, was transferred to Esther, and Probationer Hewitt was appointed Head Nurse in Victoria Ward.

On January 9th, Nurse McLaren, Head Nurse in Mary Ward, left the Hospital on completion of her three years' training to take up her duties on the Private Nurses' Staff, and Probationer Randles was appointed to succeed her as Head Nurse.

On January 10th, Probationer Squire was appointed Head Nurse in Patience and Samaritan Wards.

On January 13th, 1912, Miss E. M. Cheesman, Sister-in-Charge of Addison Ward since June, 1908, left the Hospital to be married, and Miss Hilda Edmonds, Sister of the Preliminary Training School since March, 1910, has been transferred to Addison Ward.

The following Probationers have been successful in passing the Probationers' Examination in Medicine:—

First Class.—Probationers Ames, Blyth, Boys, Bowdler, Brack, Brooks, Combe, Cosby, Dodson, Drower, Fawkes, E. de V. Fletcher, A. Foster, Garner, Garvin, Gerrard, Goodchild, Hawkins, M. E. Hope, Jenkins, Leggoe, Marshall, McComas, G. Osborne, Payne, C. Pearson, Poole, Randles, Rawson, Snelling, Tonks, Tyndale, Wade, Wilks, Wood, Wooler, Yewdall.

Second Class.—Probationers Bagnall, Ball, Bevan, Bott, Canty, Carpenter, Clifton, Cripps, Gillett, Griffith, Groom, Henderson, Hiles, E. Hope, E. C. Hope, Hubbard, Hughes, James, Macdonald, McMahon, Marfleet, McElroy, Meehan, Mitchell, A. Osborne, Parsons, Pattison, Rabbidge, Roots, Rowe, Self, Shuker, F. L. Smith, W. L. Smith, Southcott, Surtees, Vernède, Wacher, Warner, M. West, Wilson.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

Guy's Hospital Debating Society.

LADIES' NIGHT.

THE Debating Society held its Annual Ladies' Night on January 13th, and amongst the visitors were many ladies from the Royal Free Hospital and Medical School. The subject for debate was : "That Co-Education provides the only pathway to a proper mutual understanding of the sexes," and Mr. Ormond occupied the chair.

SISTER LYDIA opened the discussion. She feared that she would have great difficulty in keeping strictly to the subject under debate, for it was so closely akin to the larger question of feminine emancipation. The introduction of co-education earlier in history would probably have led to the avoidance of many of the difficulties of the Women's Movement. Treating the subject from the theoretical rather than the severely practical aspect, she defined education as all that series of instruction and discipline which is intended to enlighten the understanding, correct the temper, and form the manners and habits. This definition must include the development of sympathy and mutual understanding between individuals. The ideal family consists of boys and girls who play and are taught together for eight or ten years. Then, however, they are practically separated during the most impressionable years, and before they really meet again their education has been largely completed. Thus, the forming of manners and habits in each sex is carried on apart from mutual sympathetic understanding. Identical tuition and training is, of course, not required, nor desirable, but co-education would ensure a mutual respect and appreciation which should make the subsequent life of man and woman simpler, more effective, and more truly advantageous to themselves and the nation of which they form a part.

Mr. T. B. HEATON opposed. He based his position on the desirability of preserving an atmosphere of mystery and unintelligibility around Woman. Co-education would lead to men understanding women as well as they understood other men, a result greatly to be deplored. He further condemned the proposal on biological grounds, and considered that co-education was an attempt to obliterate the natural division between the sexes. Above all things it was necessary steadily to keep burning the flame of biological truth, and it would be especially regrettable if an assemblage of medical men and women should lend their support to a doctrine which would tend to diminish that light.

Mr. FAWCUS commented on the absence of facts in the last speaker's remarks, and thought he had obviously suffered from lack of co-education. He drew attention to the widespread system of co-education adopted in the United States, and considered that the high estimation in which Women were held in America was the outcome of co-education. Mixed classes presented many advantages to the teacher. In England, co-educational schools suffered from being often "freak" schools, and also necessarily from their experimental character, but the revival of the grammar schools in many districts was due to their adoption of co-education.

Mr. MARSHALL supported the opposition, and poured scorn upon the way in which Mr. Fawcus had lauded America. In his opinion the United States was a depraved nation, and, moreover, its condition was probably due to its co-educational system. Co-education did not raise women, but it degraded men. Boys must be trained to develop into men, and not into the hybrid which is the result of mixed schools.

A LADY then expressed her doubt as to the relevance or value of the American analogies which had been so freely drawn upon. Were no other nations corrupt, and did not corruption occur quite apart from the question of co-education?

Mr. LAYTON opposed the motion from a purely selfish male point of view. Man is not the stronger sex, and it would be highly dangerous to allow any further encroachment by women on masculine territory. After citing various examples of feminine tyranny, the speaker was himself the subject of a practical example of subjection, for, by reason apparently of a discreet hint from his wife, he abruptly concluded his speech, proving thereby the truth of his contentions.

Mr. ECCLES briefly advocated co-education as a means of doing away with the absurdity of chaperonage.

Mr. SANDISON expressed himself uncertain which side to take. Scotland provided magnificent examples of the advantages of co-education, but, on the other hand, there were many obvious objections. The whole question was in an experimental stage, and he thought it impossible to dogmatise on either side until more had been done.

Mr. RYLE, on the other hand, thought co-education was the greatest possible reform, greater even than Women's Suffrage. It was a prophylactic against many social evils, and its universal adoption was greatly to be desired.

Mrs. SHAW also confessed to rather nebulous ideas on the subject, and agreed that there was not as yet sufficient experimental data on which to base conclusions. Co-education was probably advantageous up to 12 or 14 years of age. Women made the best teachers, and it was good for boys to be under them for some period of their training. It was doubtful, however, whether co-education should be carried out at later ages.

Mr. GODDING, being a Conservative, naturally and constitutionally opposed the motion.

Mr. BEVAN-BROWN said that his personal experience of University co-education had been unfavourable.

Mr. EDMOND pointed out that a child cannot be driven, but must be allowed to develop himself under the best possible circumstances. Between the ages of 8 and 18 the boy naturally avoids the girl, and it is wrong to go against this inborn inclination for separation of the sexes.

The opposer and proposer then briefly replied, and on the motion being put to the vote, 17 voted for and 20 against, the motion being therefore lost by 3 votes.

The debate was animated throughout, and never hung fire, though the average level of speaking was not very high, and many of the arguments were marvellously irrelevant.

Correspondence.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

To the Editor of GUY'S HOSPITAL GAZETTE.

SIR,—I have several times been asked how the money given to the Out-Patient Samaritan Fund is expended, and should feel grateful if you could find space for the following in the GAZETTE.

The Fund is entirely auxiliary to the Hospital Samaritan Fund and aids those for whom the other Fund cannot be requisitioned. Since June 1st, 1911, £16 10s. 6d. has been distributed by me in the manner shown in the accompanying Balance Sheet. The large balance in hand is accounted for by the substantial grant of £20 received from the Rugby Football Club in October. Had we known we were likely to get such a large amount towards the end of the year, more relief could have been arranged, for it is not safe to promise too many people help before the money is assured.

The money, of course, is only dispensed after careful inquiry by the Out-Patient Visitors, and is chiefly used for helping patients to get the various appliances ordered, to provide patients going to Convalescent Homes with needful clothing or to clothe the destitute who attend the Department.

The Hospital does not send children to Convalescent Homes straight from Out-Patients, but contributes to the expenses while the arrangements are made and responsibility assumed by the Charity Organisation Society and the Invalid Children's Aid Association, and on several occasions the Out-Patients' Fund has been used to supplement the Hospital grant. Towards the end of the year the Society which helps to provide school children with glasses ran out of funds; therefore the Out-Patients' Samaritan Fund tided over the remaining weeks of the year for needful cases.

The Fund also provides food for patients who, for economy's sake, arrive in the early morning and spend most of the day in the Department, and also for those who, owing to the unavoidable delays which often occur in transferring patients from one Department to another are detained a considerable time.

Perhaps these few notes will interest some of your readers, and show what scope there is for extended work, if the funds are forthcoming.—Yours truly,

J. B. N. PATERSON,
Sister O.P.

Out-Patients' Department,
Guy's Hospital, S.E.
January 18th, 1912.

GUY'S HOSPITAL OUT-PATIENTS' SAMARITAN FUND ACCOUNT.

Statement of Receipts and Expenditure for the Period June 1st to December 31st, 1911.

RECEIPTS.

1911.		£ s. d.	£ s. d.
June 1.	To balance brought forward from last account:—		
	Cash at Bankers ...	10 19 5	
	Cash in hand	1 7 8	
			12 7 1
„ 30.	Grant from Out-Patients' Tea Fund, Christmas, 1910		15 0 0
Nov. 8.	Special Donation per Rugby Football Club		20 0 0
			£47 7 1

EXPENDITURE.

1911.		£ s. d.	£ s. d.
Dec. 31.	By Surgical Appliances ...	10 15 1	
	„ Clothing	2 1 1	
	„ Patients' Fares, etc....	1 19 1	
	„ Convalescent Homes...	1 6 0	
	„ Sundry Expenses ...	0 9 3	
			16 10 6
	„ Balance carried forward:—		
	Cash at Bankers ...	27 19 5	
	Cash in hand ...	2 17 2	
			30 16 7
			£47 7 1

Audited and found correct,
(Signed) CHAS. H. WELLS,
January 11th, 1912. Incorporated Accountant.

Musical Society.

DEAR SIR,—May I beg a little space in the GUY'S HOSPITAL GAZETTE wherein to voice an appeal to those Students who are lovers of Music?

The want of male voices in the last Concert given by the Choral Society was keenly felt at the many rehearsals over which Mr. Carey so generously and persistently attended. I am quite sure that this defect could, in part, at least, be remedied by a general appeal through the medium of your columns. There are many members of the Hospital, talented musicians, both vocalists and instrumentalists, whose help in these concerts would be hailed with delight, could they only be prevailed upon to take part in them. The excuse is so often given, that there is "no time," and yet it means but two hours a week, always after 5 o'clock, and generally on Fridays. Mr. Carey is always willing to lend the music to those Students who have the facilities for private practice at their own leisure.

The want of male voices for the Choral Society Concert in February is already again being experienced: may I, therefore, appeal to all those interested to do their best to turn up to at least one practice in the week, either at 5 p.m., or, in conjunction with the nurses, at 8 p.m., on Fridays, in the Medical School Committee Room? Instrumentalists will also be welcomed by Mr. Carey.

Yours, etc.,

Guy's Hospital, A LOVER OF MUSIC.
Jan. 16th, 1912.

Guy's Hospital Physiological Society.

THE Society held its first meeting this term in the Medical School Buildings, on January 8th, when Mr. C. E. Petley read an instructive paper on "Reflex Actions." Mr. Davies-Colley was in the chair, and close on 40 members were present. The discussion which ensued was not as brisk as usual, due, it seems, to the diffidence of members in expressing opinions on matters which require a fairly accurate knowledge of scientific facts. However, Messrs. Ryffel and Gardiner came to the rescue and raised many interesting points of psychological, as well as physiological, interest.

The Annual Dinner of the Society has been fixed for Thursday, January 25th, at 8 p.m. It is to be hoped there will be a large muster in the Reading Room of the Club where the festive event will take place. Tickets, price 3/6, are to be had from any of the Committee, Messrs. Bevan-Brown, Medlock, Tweed, Harkness, Evans, or from the Secretary, Mr. A. S. Liebson.

Dr. Pembrey will be in the chair.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

A System of Surgery. Edited by Choyce & Beattie. Vol. 1. (Cassell & Co., Ltd.) Price 21s.

This is the first volume of the three which are to complete the book, and deals mainly with pathology and certain general chapters in surgery. It contains a number of excellent chapters, among which we would especially note the articles on syphilis by Col. Lambkin and Mr. McDonagh, and the chapter on spinal anæsthesia by Mr. L. McGavin, for which alone the volume is well worth purchasing. The bacteriological articles are good and do not occupy an undue amount of space, while to each chapter is appended an excellent bibliography. The list of contributors to this and the remaining volumes contains the names of many well-known and able surgeons, and is sufficient guarantee of the excellence of the work. There can be no doubt that a system of general surgery is much needed, and we shall await the appearance of the remaining volumes with great interest. The get-up of the book, both as regards size, paper and print, is admirable, and the illustrations are good, although we would doubt whether some of the X-ray photographs are not more of the nature of "pretty pictures" than working aids to diagnosis; further, a number of radiograms of the hand labelled rheumatoid-arthritis, are to us very suggestive of gouty deposits, while we should be interested to know the reasons which lead to the photographs on plate 59, being called "sessile exostosis," and the points which excluded a diagnosis of sarcoma.

The Tobacco Habit. By W. H. Tidswell, M.R.C.S. (J. & A. Churchill.) Price 3s. 6d.

Undoubtedly tobacco may be used to excess, but those persons who, regarding it as poison, spend their energies in abusing it, often produce more mental deterioration in themselves than could have been the result had they smoked innumerable pipes, cigars, and cigarettes.

The writer of this book is a man who has devoted himself with laborious care to an attempt to prove that tobacco is a chief cause of all our woes and especially responsible for the diminishing birth rate. He is so genuinely in earnest that, though his work exposes itself at every turn to scathing criticism and frequent ridicule, yet it would be almost cruel to demolish it piecemeal. He has collected statistics regarding the percentage of miscarriages, sterility, and stillborn births in families where the husband was a smoker, and considers he has proved it to be higher than in non-smoking households. As, however, he has concentrated his attention on this one factor alone, and gives no particulars of other etiological possibilities, it is impossible to regard his results seriously, and all the more so since they are set out with no scientific precision and an entire absence of controls. He dedicates the book to the memory of his

parents, saying that "To my Mother's wisdom and moral courage I owe my emancipation from the slavery of the Tobacco Habit, which I unhappily acquired in the Medical School of St. George's Hospital, London." Incidentally he believes in the Divine Right of Kings, and says that we as doctors "should consider ourselves highly honoured by God and the king, who rules by Divine Right, when we are admitted as members of the medical profession."

The whole book is permeated with propagandist zeal, but, unfortunately, lacks acquaintance with the essentials of evidence, being merely an extraordinary and often most amusing collection of haphazard statements of facts connected, more or less remotely, with tobacco smoking. Nevertheless, to the accompaniment of a good cigar or pipe it may well serve to while away an idle hour.

Prize Examinations.

Competition for the undermentioned Prizes will take place on the following dates:—

JUNIOR PRIZES FOR GENERAL PROFICIENCY.—Wednesday, March 13th, 10—1, Elementary Anatomy; 10—1, Anatomy; 2—5, Physiology. Tuesday, July 9th, 10—1, Histology; 2—5, Elementary Anatomy.

MICHAEL HARRIS PRIZE IN ANATOMY.—Wednesday, March 13th, 10—1. The date of the Practical Examination will be announced later.

THE WOOLDRIDGE MEMORIAL PRIZE IN PHYSIOLOGY.—Wednesday, March 13th, 2—5. The date of the Practical Examination will be announced later.

BEANEY PRIZE IN PATHOLOGY.—Monday, May 6th, 10—1. The date of the Practical Examination will be announced later.

TREASURER'S MEDALS.—Tuesday, June 11th, 10—1, Surgery; 2—5, Medicine. Wednesday, June 12th, 10—1, Commentary on a Case in Medicine; 2—5, Commentary on a Case in Surgery. Thursday, June 13th, 10—1, Clinical Examination in Medicine. Friday, June 14th, 10—1, Clinical Examination in Surgery. Operations to be announced later.

GOLDING-BIRD GOLD MEDAL AND SCHOLARSHIP IN BACTERIOLOGY.—Thursday, March 14th, 10—1, Paper; 2—5, Practical. Friday, March 15th, 10—1, Vivâ Voce.

OPEN SCHOLARSHIPS IN ARTS AND SCIENCES.—The Examinations will be held on September 24th, 25th, and 26th.

DENTAL PRIZES.—First Year's Prize in Dental Subjects: Tuesday, March 19th, 10—1, Dental Metallurgy; Wednesday, March 20th, 2—5, Dental Anatomy; Friday, March 22nd, 2—5, Dental Surgery. 1912 Prize: Tuesday, July 9th, 2—4, Dental Mechanics; Thursday, July 18th, 10—1, Dental Metallurgy; Tuesday, December 10th, 2—4, Dental Mechanics. Second Year's Prize in Dental Subjects: Wednesday, March 20th, 2—5, Dental Anatomy; Friday, March 22nd, 2—5, Dental Surgery; Friday, June 21, 10—1, Dental Bacteriology: Friday, July 12th, 2—4, Dental Histology; Thursday, July 18th, 2—5, Operative Dental Surgery. Second Year's Prize in General Subjects: Tuesday, March 19th, 2—5, Anatomy; Wednesday, March 20th, 10—12, Physiology; Thursday, March 21st, 2—4, Surgery (including Surgical Pathology).

PRIZE FOR OPERATIVE DENTAL SURGERY.—The examination for this Prize takes place in the Summer Session. The Regulations are given on page 37 of the Prospectus of the Dental School.

NEWLAND-PEDLEY GOLD MEDAL FOR PRACTICAL DENTISTRY.—The examination for this Prize begins in the month of December. The Regulations are given on page 36 of the Prospectus of the Dental School.

SCHOLARSHIPS IN DENTAL MECHANICS.—Tuesday, April 30th; Monday, September 30th.

No Candidate will be allowed to compete for any Prize unless he has given notice in writing to the Dean at least *fourteen clear days* before the commencement of the Examination.

Students' Calendar, 1912.

1912.

Jan., Mon. 1—First Part of Conjoint D.P.H. Examination.
,, Tues. 2—Lectures resumed after Christmas Recess.
First Conjoint Examination begins.
,, Thur. 4—Second Conjoint Examination begins.
,, Mon. 8—Second Part of Conjoint D.P.H. Examination.
,, Tues. 9—Final Conjoint Examination begins.
,, Sat. 13—*Debating Society's Meeting at 8 p.m.*
,, Sat. 20—Physical Society's Meeting (Clinical Evening) at 8 p.m.
,, Wed. 31—Physical Society's Meeting at 8 p.m.
Feb., Thur. 8—Debating Society's Meeting at 8 p.m.
,, Wed. 14—Physical Society's Meeting at 8 p.m.
,, Thur. 15—Entry closes for Second Examination for M.B. London. (Parts I. and II.)
,, Sat. 24—Debating Society's Meeting at 8 p.m
Mar., Fri. 1—April Appointment List opened.
,, Sat. 2—*Physical Society's Meeting at 8 p.m.*
,, Fri. 8—April Appointment List closed.
School Examination in Practical Physiology.
,, Sat. 9—School Examination in Practical Physiology.
,, Wed. 13—Examinations for Junior Proficiency, Michael Harris and Wooldridge Memorial Prizes begin.
Physical Society's Meeting at 8 p.m.
,, Thur. 14—*Examination for Golding-Bird Gold Medal and Scholarship begins.*
Debating Society's Meeting at 8 p.m.
,, Mon. 18—Second Examination for M.B. London (Part II.) begins.
First and Second M.B. Durham Examinations begin.
,, Wed. 20—Second Examination for M.B. London (Part I.) begins.
,, Thur. 21—School Examination in Elementary Anatomy.
Lectures cease.
,, Fri. 22—Physical Society's Meeting at 8 p.m. (Treasurer's Prize Essay).
Winter Session ends.
Examinations for Third and Final M.B. and for M.D. and M.S. Durham begin.
,, Tues. 26—First Conjoint Examination begins.
,, Thur. 28—Second Conjoint Examination begins.
April, Mon. 1—Entry closes for Final M.B., B.S. London Exam.

April, Wed. 3—First Part of Cambridge D.P.H. Examination begins.
,, Mon. 8—Easter Monday. Medical School Office closed.
Second Part of Cambridge D.P.H. Examination begins.
,, Tues. 9—Final Conjoint Examination begins.
,, Tues 23—Cambridge Second M.B. Examination, Part II., begins.
May, Wed. 1—*Summer Session begins.*
,, Thur. 2—Probable date of Primary Fellowship Examination.
,, Mon. 6—Final M.B., B.S. London Examination begins.
Examination for Beaney Prize in Pathology begins.
,, Wed. 8—Presentation Day, London University.
,, Thur. 16—Probable date of Final Fellowship Examination.
,, Mon. 27—Whitsun Monday. Medical School Office closed.
June, Sat. 1—July Appointment List opened.
Entry closes for First and Second Examinations for M.B. and for M.D. and for M.S. Examinations (London).
,, Sat. 8—July Appointment List closed.
,, Mon. 10—Cambridge First and Second Examinations (Part I.), and Third Examination (Old Regulations) for M.B. Degree begin.
,, Tues. 11—Cambridge Third Examination for M.B. Degree, Part II. (Old Regulations), and Third Examination for M.B. Degree (New Regulations), begin.
Examinations for Treasurer's Gold Medals begin.
,, Mon. 17—Examinations for M.D. and M.S. and Final M.B. Degrees, Durham, begin.
,, Mon. 24—First and Second M.B. Durham Examinations begin.
First Part of Conjoint D.P.H. Examination begins.
,, Thur. 27—Second Conjoint Examination begins.
July, Mon. 1—Second Part of Conjoint D.P.H. Examination begins.
Second Examination for M.B. (Part II.), and M.D. and M.S. London Examinations begin.
Third M.B. Durham Examination begins.
,, Tues. 2—Final Conjoint Examination begins.
,, Mon. 8—First Examination for M.B. London begins.
,, Tues. 9—Examinations in Histology and Elementary Anatomy for Junior Prizes for General Proficiency.
July, Wed. 10—School Examination in Histology at 11 a.m.
,, Thur. 11—Second Examination for M.B. London (Part I.) begins.
,, Sat. 13—School Examination in Histology at 11 a.m.
,, Tues. 16—First Conjoint Examination begins.
,, Thur. 18—Lectures cease.
School Examination in Elementary Anatomy.
,, Fri. 19—Summer Session ends.
October Appointment List opened.
Aug., Fri. 2—Wills Library closed to-day, and until the 24th August, inclusive.
Aug., Mon. 5—Bank Holiday. Medical School Office closed.
,, Mon. 26—Wills Library re-opens.
Sept. Mon. 2—October Appointment List closed.
,, Mon. 9—Names of Candidates for Entrance Scholarships to be sent to Medical School Office by this date.
,, Tues. 24—Examinations for Entrance Scholarships begin.
,, Thur. 26—Second Conjoint Examination begins.
,, Sat. 28—Entry closes for Final M.B., B.S. London Examination.
Oct., Tues. 1—*Winter Session begins.*
School Examination in Elementary Anatomy.
First Conjoint Examination begins.
Examination for Cambridge Second M.B. Part II. begins.
,, Wed. 2—First Part of Camb. D.P.H. Examination begins.
,, Fri. 4—Opening Meeting of Pupils' Physical Society at 8 p.m.
First Examination for Cambridge M.B. Degree begins.
,, Mon. 7—Second Part of Camb. D.P.H. Examination begins.
,, Tues. 8—Final Conjoint Examination begins.
,, Sat. 12—Pupil Society's Meeting at 8 p.m.
,, Sat. 19—Probable date of Debating Society's Meeting at 8 p.m.
,, Mon. 28—Final M.B., B.S. Lond. Examination begins.
,, Wed. 30—Physical Society's Meeting at 8 p.m.
Nov., Th. 7—Probable date of the Primary Fellowship Examination.
,, Fri. 8—Entry closes for First Examination for M.B. London.
,, Sat. 16—Probable date of Debating Society's Meeting.
,, Thur. 21—Probable date of Final Fellowship Examination.
,, Wed. 27—Physical Society's Meeting at 8 p.m.
January Appointment List opened.
Dec., Mon. 2—Examinations for M.D. and M.S. Lond. begin.
,, Wed. 4—January Appointment List closed.
,, Fri. 6—School Examination in Experimental Physiology.
,, Sat. 7—School Examination in Experimental Physiology.
,, Mon. 9—Cambridge First and Second Examinations (Part I.) for M.B. Degree begin.
,, Tues. 10—Cambridge Third Examination for M.B. Degree begins.
Examination in Elementary Anatomy for Junior Prizes for General Proficiency.
,, Wed. 11—Physical Society's Meeting at 8 p.m.
,, Sat. 14—Probable date of Debating Society's Meeting at 8 p.m.
,, Mon. 16—First Examination for M.B. London begins.
,, Thur. 19—School Examination in Elementary Anatomy and Christmas Examination in Anatomy begin.
Lectures cease.
,, Fri. 20—First Half of Winter Session ends.

1913.

Jan., Wed. 1—Lectures resumed after Christmas recess.

Sport.

Rugby Football.

GUY'S v. ROSSLYN PARK.

This match was played at Richmond on January 6th, on about the most wretched afternoon of this most wretched winter. The rain pelted down incessantly, and the ground was quickly a grease heap, with here and there a foothold. Naturally the game was mostly with the forwards, and the packs on either side kept the game going with the utmost energy.

The Park showed up to more advantage first. They were the first to score, W. H. Haslam, one of their three-quarters, running in with a well-earned try. Moore took the kick, but met with no success. Guy's got more of the game after this reverse, but the Park back division were tackling very soundly and kept Guy's out. After some pressure they forced the game back to the visitors' 25, where Smith secured and put on another try for Rosslyn Park, which was converted. But Pritchard gained for Guy's a good try before half-time, and, with Stokes goaling, ends were changed with the home side leading by 8 points to 5.

Guy's did better the second half, and were attacking almost all through, but on such a day accurate football was quite impossible. Before the end, Pritchard, who throughout had played one of his best games, ran in again. Stokes added the extra points, so that the Hospital eventually ran out winners by a small margin. Guy's: 2 goals (10 points); Rosslyn Park: 1 goal, 1 try (8 points). Team:—

GUY'S.—H. Millett (back); A. L. Stokes, G. B. Pritchard, A. H. Harkness, A. F. Rook (three-quarters); C. H. Medlock, C. Broome (halves); C. S. L. Roberts, W. S. Stranack, R. S. Kennedy, V. Glendining, O. Parry-Jones, A. L. Liebson, H. Daw, H. Anthony (forwards).

GUY'S v. BLACKHEATH.

Blackheath appeared at the home ground, for the first time for many years, on Saturday, January 13th. They did not bring their strongest side, it is true; but, still, those players who eventually turned out were by no means a weak set of men. Dickson (the Scottish International full-back choice) Wood, Dodds (of Northumberland County), Guy Stokes, and K. Harding made a very good full-back and three-quarter line. The halves were not great, but the forwards included Craven, Begbie, Tinson, Dussek, Rowbotham, the younger Pillman, Eates, etc.

The ground was soft, but the game was splendidly contested for all that. A fine crowd gathered, and many were unable to get a place on the stand. The opening stages of play went in favour of Blackheath. Their forwards got going the stronger during the first half, but it was a long time before anything was scored. All the Guy's backs, except one, were tackling finely, but they found Dodds a sturdy handful; two or three times he broke through, and a pass of his to Leney led to the first try, Dickson goaling.

Soon after half-time Guy's equalised. J. P. Jones played in place of Medlock, who was resting a strained shoulder. J. E. Davis, at the scrum base, worked heroically, and a pass to "J. P." enabled the latter to very cleverly cut through, hand to Rook and receive again, to eventually touch about half-way between corner flag and goal-post. A nice kick by Stokes goaled the effort. From the resumption Millett was bustled, and it almost looked as though Blackheath would draw ahead again; but such was not to be the case. Guy's forwards started to play in real earnest, and going out in dashing fashion they kept the Heathens busy in their own half, where Pritchard punted across, to follow up and touch down himself for the winning try. It was very far out; too wide for Stokes to goal. Soon the final whistle went, and an excellent game ended in a victory for Guy's by 1 goal, 1 try to 1 goal. Team:—

GUY'S.—H. Millett (back); A. L. Stokes, G. B. Pritchard, A. H. Harkness, A. F. Rook (three-quarters); J. P. Jones, J. E. Davis (halves); C. S. L. Roberts, W. S. Stranack, R. S. Kennedy, H. Hoby, V. Glendining, O. Parry-Jones, H. Daw, A. L. Liebson (forwards).

REMARKS.—The whole side played well, with one or two exceptions. Millett was splendid; Pritchard, Harkness, and Rook quite sound. The lack of pace of the latter is made up for by his understanding with Harkness and his grit. Stokes was not at his best; he had few chances, but might, perhaps, have made some. J. E. Davis did very well; it was an awful day for his work. J. P. Jones played at the top of his form. The forwards improved very much as the game wore on. Daw was by no means the least useful; he certainly tried his hardest. Hoby was not fit, but when he gets into proper condition he should once again fill adequately the rôle of rover.

Change of Address.

A. W. Aldis, L.D.S., from "Ivy Cottage," to 338, Upper Richmond Road, East Sheen, S.W.

H. J. Dear, L.D.S., from 18, The Hawthorns, Finchley, to 370, Uxbridge Road, W.

W. L. W. Marshall, M.R.C.S., L.S.A., from Vernon House, Huddersfield, to Wentworth House, Huddersfield.

I. G. Samuels, L.D.S., from St. Leonard's Place, Exeter, to 22, Museum Street, Ipswich.

David Thomson, L.R.C.S., L.R.C.P., Ed., from 6, Avondale Road, Gorleston-on-Sea, to "Ulverstone," Devon, Tasmania.

Birth.

ATKINS.—On December 27th, 1911, at Loughborough, Leicestershire, the wife of F. R. L. Atkins, M.R.C.S., L.R.C.P., of a daughter.

Marriage.

SHIPWAY–BIDDELL.—On January 6th, at Holy Trinity, Brompton, Francis Edward Shipway, M.D., to Winifred Adine, eldest daughter of W. B. Biddell, of Sherwood Oaks, Kenley.

Death.

MOIR.—Surgeon Gordon, R.N. On 26th December, suddenly from syncope, following pleurisy and pneumonia, in the 36th year of his age.

Eds.—E. G. S. and A. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 616.] FEBRUARY 3, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	41–43
Appointments	43
An Unusual Case of Psoas Abscess. By T. B. Layton, M.S	44–47
Change of Address	47
Pass List	47
Traumatic Cerebral Compression. Clinical Lecture by C. H. Fagge	48–53
Guy's Hospital Dental Society	53
Charles Dickens—and us	54–56
Guy's Hospital Physiological Society ...	57
Correspondence	57
Further Statistics from the Skin Department	58
Reviews, etc.	58
Sport	59–60
Papers by Guy's Men	60

Passim.

THE recent discussion at the Physical Society on "Psychology and Medicine" raised many questions of real importance to all medical students. It is becoming increasingly more essential that Medical Science should adopt a definite attitude in its relation towards Psychology, and in the opinion of many it is considered necessary that at least the elements of Psychology should be included in the medical curriculum. The labours of the would-be physician are, indeed, already arduous and multifarious enough, but there is much to be said for adding yet this further branch to his studies if the doctor of the future is really adequately to be equipped for his position in the world.

PSYCHOLOGY in many minds is confused with Psychical Research, and the tricks of spiritualistic séances, and at the outset has often to combat a mass of uninformed and prejudiced conceptions regarding its scope and function. Not so long ago psychical research was anathema to orthodox scientists and those who set out to investigate it in a truly scientific spirit were subjected to persecution and abuse, an event which, unfortunately, is not without parallel in medical history. Now-a-days such intolerance has disappeared, and the phenomena of psychical research are treated with adequate respect. In the same way there is little doubt that in the future medicine will show a fuller appreciation of the importance and relevance of psychology. Indeed it is already doing so, for the value of suggestive treatment as an adjunct to ordinary therapeutics is being daily taught and demonstrated here and elsewhere. At the same time there is considerable danger of such psychological treatment becoming largely empirical, and of its being used without a clear conception of the underlying principles. Empiricism is already sufficiently prevalent in therapeutics, and there is no necessity further to extend its sphere of influence.

IN a complete medical education psychology is as essential a component as a knowledge of the diseases of special sense-organs. In the study of the brain and nervous system physiology without psychology is palpably deficient and, to a lesser degree, perhaps, the study of the workings of every part of the whole body is intimately bound up with the mental factor, as witness the classical "psychical secretion" of gastric juice demonstrated by Pawlow. Thus, a medical education which ignores or treats as of trivial importance the psychology of disease, lacks one of the most potent factors for the efficient practice of medicine. This is now freely admitted, but the practical deductions therefrom are apt to be overlooked. It cannot be considered sufficient to pick up smatterings of empirical psychological knowledge; the study should be placed on a firm and recognised basis, and its elements incorporated into the training of medical students in the same way that the rudiments of chemistry and physics are introduced.

Undoubtedly psychology is by no means an easy subject for study, and is so recent an arrival amongst the sciences, that its practical teaching presents numerous difficulties. Nevertheless the mere fact of its recognition as an official subject for study would assist greatly in its simplification and hasten its advance. At the present time every elementary school teacher is expected to acquire the rudiments of psychology, and surely the function of the doctor to the child is no less important than that of the teacher, and needs at least an equal training. A modern doctor ought to feel the same confidence in his diagnostic, therapeutic and prognostic skill in approaching a case of mental disease as he does when called to one concerned with the heart or lungs. This is, however, hardly the case at present, but it is probable that a proper appreciation of the importance of psychological training in medical education would hasten the advent of such a state of things.

Two recent articles on subjects of general medical thought by leaders of the profession are of more than passing interest. Sir Dyce Duckworth in *The Practitioner* makes an appeal for the recognition of "morbid diatheses" to a fuller extent than is now practised. He points out how with the sudden influx of bacteriological knowledge the older diathetic conceptions of disease were swept into comparative obscurity, and how the tendency to consider the microbe as the most essential factor in disease has rapidly gained ground. The result has been, as he concisely remarks, that: "the attention of observers, both in the laboratory and at the bedside, has been diverted from the soil to the seed, so that the soil is now neglected as a study, and regarded as of little or no importance." Undoubtedly there has been, and is still, much danger of a failure to recognise the two-fold nature of disease, and such a warning is not unneeded in modern medical work. The evidence for diatheses, though often vague and, compared with bacteriological science, incapable as yet of precise definition, is none the less fascinating and probably of more importance than is commonly realised.

Sir Clifford Allbutt in an introductory article to a new medical review, *The Universal Medical Record*, with characteristic vigour advocates a greater precision in the use of medical terms, and especially emphasises the inaccuracy of considering any disease as a distinct "entity." Scarlet-fever or measles is, he points out, no more a definite thing than is anger or misery, but simply a general concept in our minds of certain disorderly ways of function. Consequently, he says, to ask a student at an examination to define any disease is to ask the impossible, an opinion with which many will cordially agree. Particularly does he object to such terms as "Jacksonian epilepsy," comparing such phraseology with the inaccuracy of calling a whale a fish. The article may perhaps appear to some unduly pedantic, but is well worthy of careful consideration, and may act as a check upon the undoubted tendency amongst many medical men to use terms and phrases with but scanty regard to their real significance. These two articles on diatheses and precision of language come as a welcome change from the ordinary run of technical expositions, and should act as an antidote to narrowness of outlook on the medical world.

We have much pleasure in announcing that the sale of Guy's Hospital Christmas Greeting and Post Cards, 1911, through Miss Smith in the Matron's Office, and Mr. Crampton in the Wills' Library, has resulted in a sum of £17 10s. being handed over to the hospital. Thanks are again due to Messrs. Ash & Co., Ltd., for enabling the funds of the Hospital to be thus augmented, through their kindness in supplying the Cards gratuitously.

We are asked to announce that the Guy's Hospital Musical Society will hold its next concert on February 20th, at 8.15 p.m. The programme will include Dr. Walford Davies' nursery rhymes, part songs by Mendelssohn, Wesley and Elgar, and vocal and instrumental solos. Those who have attended previous concerts of this Society will know that the only doubtful factor in a successful evening is the

audience, and we would appeal to our readers to show by their presence at the concert on February 20th, that the efforts of Mr. Carey and his energetic helpers are not in reality as unappreciated as would appear from previous attendances. It is most important that this Society, which is one of the most active and useful at Guy's should receive proper support, since it is dependent upon the success of the concert for its financial existence. We therefore appeal to the Staff, as well as to the Students and Nurses, to turn up themselves, and to interest as many of their friends as they can in the concert. Tickets, price 2/6, may be obtained from the Secretaries, Messrs. Eccles and Thompson, or from Mr. Carey, and it is earnestly hoped that the audience on February 20th, may be to some extent worthy of the entertainment provided by the Society.

We have much pleasure in announcing that Mr. W. H. Trethowan has been appointed, under the terms of the advertisement which appeared in the Gazette recently, to qualify himself for the post of Orthopædic Surgeon to the Hospital. It will be remembered that the announcement was to the effect that the successful applicant will be required to visit Sweden to study the question of Swedish drill, and will then be required to act as Chief Clinical Assistant in the Orthopædic Department until such time as Mr. Rowlands may feel justified in relinquishing the department to him. Mr. Trethowan qualified M.R.C.S., L.R.C.P., in 1906, and in the same year took the M.B., B.S. (Lond.), achieving the rare distinction of obtaining honours in three subjects, as well as the University Gold Medal for the whole examination. In 1907 he was Dr. Pitt's House Physician, after which he held the appointment of Obstetric Resident to Dr. Horrocks. From 1908 to 1910 Mr. Trethowan was Resident Officer in Bright ward, leaving that appointment to take up his duties as Resident Surgical Officer. Only those who have worked with him can know the tact and ability with which he has discharged the many and onerous duties attaching to that post, more especially in reference to the recent changes in the Out-Patient Department. Mr. Trethowan has yet another claim to fame, having provided a title to that spectacular drama, "Mactreth." We feel sure that this appointment will be an extremely popular one, and would offer Mr. Trethowan our heartiest congratulations, and wish him the success in his new work which he has achieved in his old.

The Annual Dinner of the Guy's Hospital University London University Club will be held on Friday, March 1st, at the Criterion Restaurant, Mr. Charters Symonds taking the chair. All past and present London men who are, or have been, at Guy's are invited to attend, and it is hoped that there will be a record attendance. Further information may obtained from the Hon. Secs., Mr. Iredell and Mr. G. E. Genge-Andrews.

Appointments.

Naval and Military.

Royal Naval Volunteer Reserve.—Surgeon W. K. Wills, M.D., to be Staff Surgeon, dated January 8th, 1912.

R.A.M. Corps.—Lieut.-Colonel T. Winter has vacated his appointment on the London Recruiting Staff, and taken up duty at Colchester.

Captain H. O. M. Beadnell, from the Half-pay List, is restored to the Establishment, dated January 17th, 1912.

Civil.

Charters J. Symonds, Esq., M.S., F.R.C.S., to be Examiner in Surgery at the University of Oxford.

Charters J. Symonds, Esq., M.S., F.R.C.S., to the Consulting Staff of the Convalescent Home for Officers at Osborne.

E. P. Hudson, L.D.S., to be Dental Surgeon to the Royal Free Hospital, Gray's Inn Road, W.C.

H I. Janmahomed, M.D. Lond., F.R.C.S., to be Hon. Surgeon, Jamshidji Jibibhai Hospital, Bombay.

J. L. Rankine, M.R.C.S., L.R.C.P., to be Medical Officer of Health, Longtown Rural District.

O. E. Williams, M.R.C.S., L.R.C.P., to be Assistant House Surgeon, Derbyshire Royal Infirmary, Derby.

An Unusual Case of Psoas Abscess.

BY T. B. LAYTON, M.S.

WITHIN a week every ward-clerk knows that a psoas abscess may point in the popliteal space or by the tendo-Achilles. The rapidity with which men acquire this out-of-the-way piece of surgical knowledge would form an interesting psychological study. The case upon which the knowledge is based is referred to by Erichsen in his text-book of surgery (Tenth Edition, Vol. I., p. 254, Fig. 93, and Vol. II., p. 484).

This condition must be extremely rare, and therefore a case in which the opposite occurred, and of which an opportunity was afforded post-mortem to study its anatomy is worth recording.

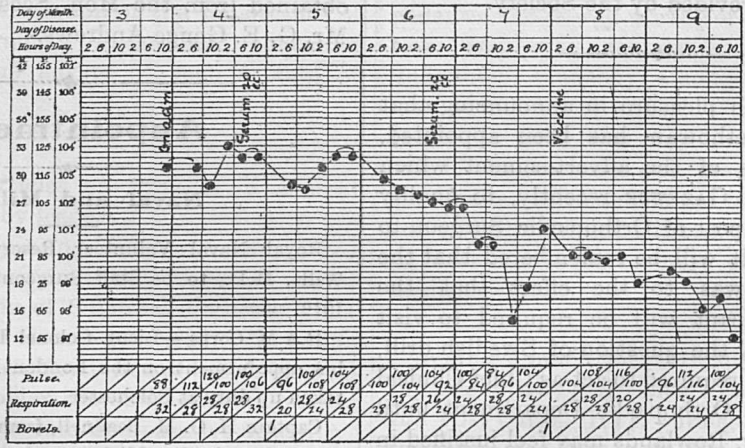
The case has also a practical bearing which is sometimes lost sight of. When a patient is lying in bed with the lower limb on a splint, propped up on a pillow, pus still tends to track by gravity to the most dependent part, this is now anatomically higher up in the limb than was the original lesion. Hence, when lying in bed, an abscess of the lower limb tracks in the opposite direction from what it does when the patient is up and about, and from that in which the surgeon's mental picture leads him to look for it.

While I was surgical registrar I saw this fact exemplified in two other cases besides the one described below.

In the first an abscess burst on the inner side of the thigh, high up between the origins of the adductor longus and gracilis muscles, in the area of skin which lies in contact with the scrotum. The patient was suffering from an acute arthritis of the knee-joint of the same side, and this abscess was long thought to be pyæmic in nature. Later, it was discovered to be in connection with the back of the joint by a long track passing through the adductor and hamstring muscles of the thigh.

In the second an operation for a compound fracture of the shaft of the tibia had been done. The temperature rose, the boy was suffering from a very acute pharyngitis from which a virulent streptococcus was cultivated. When seeing the old cases in the ward next morning I found an abscess pointing four inches above the knee-joint under cover of the semi-membranous muscle.

The following case I am recording in full, by permission of Mr. Rowlands, under whose care she was in 1909. (Surg. Reports, No. 42.)



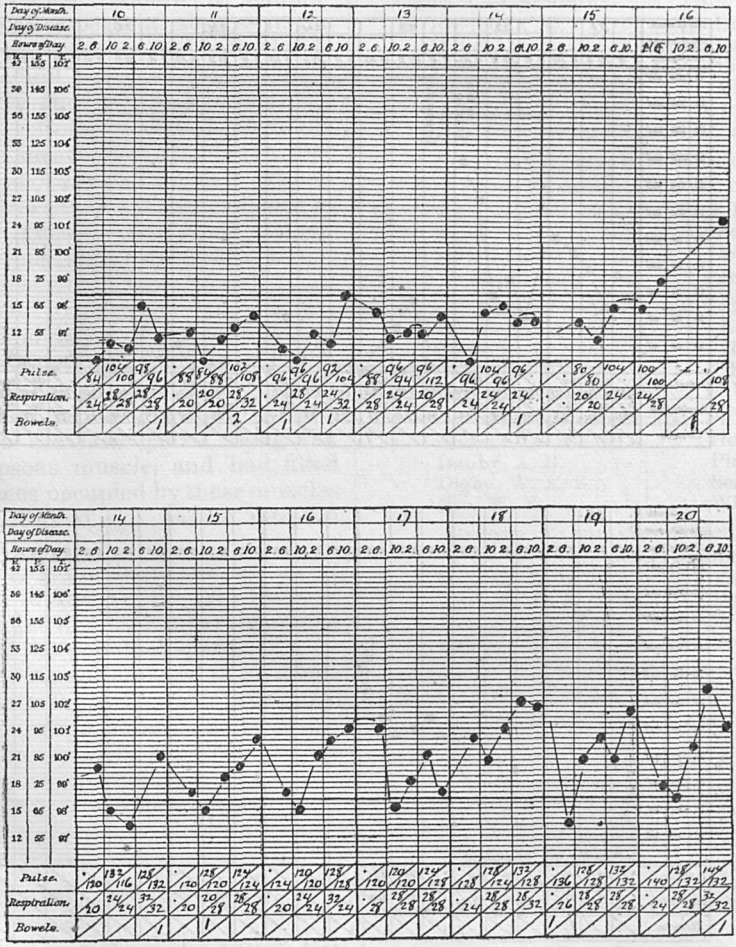
Mary V., æt. 50, was admitted into Patience on January 3rd, with a small inflamed area at the back of the left heel surrounding an abrasion, of a week's standing.

She was very ill indeed, with a high temperature (103° F.). She lay in bed dull, listless, in an extreme position of rest, with the eyes half-closed, and the mouth slightly open, showing the teeth covered with sordes. She would answer when spoken to, but with an obvious effort.

The doctor who had been attending her, wrote as follows on January 3rd: "Mrs. V. has been under my care since Tuesday last (December 28th); at first she complained of feeling feverish and having pain in her limbs, etc. I found on examination that she had a temperature of 105° F., and thought at first it was a case of influenza: the temperature

gradually came down until last night when it rose again to 104° F. Two days ago she called my attention to her heel, since then her leg has been swelling a great deal."

An incision was made into the sore on the heel, sanguineous fluid only was let out, and from this was cultivated a pure growth of staphylococcus albus (Bact. Reports for 1909, No. 74).



Before this report arrived 20 c.c. of antistreptococcic serum were injected, and this was repeated on the fourth day; on the fifth day a vaccine of five million staphylococci, grown from her own organisms, was injected.

During this time the general condition of the patient had been steadily improving. In the whole period the pulse rate had not been raised in proportion to her temperature, and this gave rise to a suspicion of typhoid. A Widal's test was negative (Bact. Reports for 1909, No. 75).

The local condition, however, did not improve; around the original sore was a spreading area of erysipelas which by January 11th had reached the knee. A gangrenous cellulitis of the foot resulted in sloughing of the skin and exposure of the tendons over a large area of the dorsum.

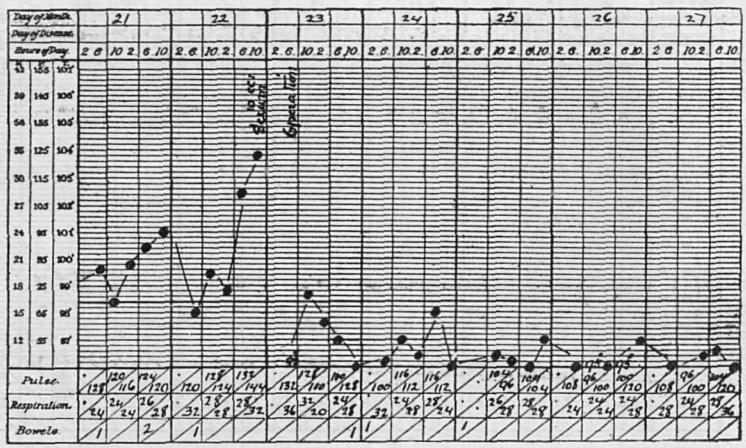
She had had some enlarged glands in the groin on admission but these had subsided.

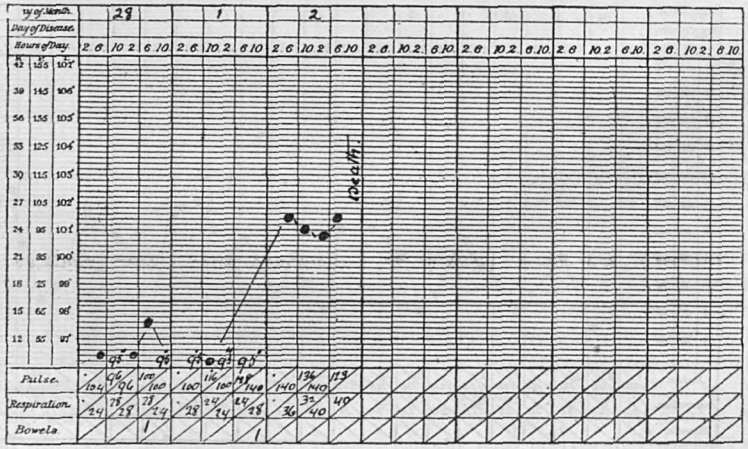
On January 16th, two weeks after admission, her temperature rose again, her general condition relapsed somewhat; the erysipelas spread steadily upwards and was succeeded below by induration of the tissues of the leg and thigh.

By the middle of February this induration had extended to Poupart's ligament. It was

thought to be due to a thrombosis of the femoral vein. She refused to allow any operation until February 22nd, some two days after a swelling had been seen in the popliteal space. This was opened and a small amount of pus let out.

She never rallied from the operation and died on March 2nd. During the last three weeks of her life her general condition seemed good; she took her food well, was cheerful and had a good





pulse. It was not till two days after the operation that in these respects she started to go down hill. On February 25th she began to refuse food and became listless. On March 1st she became drowsy, then almost unconscious; during the last twelve hours of life she could not be roused at all.

Dr. French performed the post-mortem (see Inspections for 1909, No. 42). He kindly allowed me to examine the local condition in the left lower limb.

The whole limb from heel to groin was very swollen, but this was most marked in the region of the thigh, where also the skin would not pit but was very tough and brawny.

On the outer side of the dorsum of the foot and on the inner side of the heel were two large ulcers covered with healthy red granulations; these had resulted from sloughing of the skin in the original erysipelas area; over the great trochanter was another area where the skin was becoming gangrenous, in this case probably a bed-sore.

On examining the knee-joint the suberural pouch was found to be distended with an opaque fluid, and lined by a pyogenic membrane. By means of adhesions the pouch had become shut

off from the general synovial cavity of the knee, which showed no pathological change beyond a slight increase of synovial fluid.

The saphenous vein was cut down upon and found to be thrombosed near the saphenous opening. In doing this a small snick was made in the deep fascia, and a cavity beneath was discovered which was full of pus.

This was opened up and an abscess cavity containing greenish pus and of most unusual dimensions was revealed. Below it communicated with the small superficial abscess in the popliteal space which was connected with glands and had been opened on February 23rd. These glands were probably the site from which the abscess had spread. It had burst through the deep fascia into the sheath of the femoral artery just at the lower end of Hunter's canal. It had then tracked up this canal and spread out in Scarpa's triangle. These two regions it had entirely filled with pus and had dissected out the vessels and nerves which ran through them by destroying the fat. Hence when the pus was drained away the boundaries of the triangle and canal with their structures running through them stood out as though demonstrated by an anatomical dissection. Above Scarpa's triangle it had passed into the false pelvis along the sheath of the ilio-psoas muscle, and had filled completely the spaces occupied by these muscles in the abdomen. It had not passed into the true pelvis.

There was, therefore, one huge abscess cavity reaching from the thorax at the 12th thoracic vertebra and rib under the ilio-lumbar ligaments to the upper end of the popliteal space.

The femoral vein was thrombosed in its whole extent. The popliteal space when examined from the front was quite normal in its deeper parts, it was only in the most superficial region that there was any suppuration.

The popliteal vein was not thrombosed.

Appended is the temperature chart.

Change of Address.

A. M. Bodkin, M.R.C.S., L.R.C.P., from Guy's Hospital to The Limes, Kelvedon, Essex.

W. G. Pinching, M.R.C.S., L.R.C.P., from 76, New Road, Gravesend, to Frampton-on-Servern, Stonehouse, Glos.

D. Wilberforce Smith, F.R.C.S., M.B., B.S., from 79 to 68, Wimpole Street, W.

Surgeon D. A. Mitchell, R.N., from H.M.S. *Terrible* to H.M.S. *Alert*, East India Station, the appointment dating from 24th January, 1912.

The telephone number of A. Shillitoe, M.B., B.C., F.R.C.S., of 2, Frederick's Place, Old Jewry, E.C., is 1630 City.

Pass List.

Cambridge University.

The following Degree has been conferred:—

B.C.—A. C. Jepson.

Royal College of Surgeons of England.

LICENCE IN DENTAL SURGERY.

PRELIMINARY SCIENCE, JANUARY, 1912.

Part I.—CHEMISTRY.	Part II.—PHYSICS.
*Brough, K. C.	†Ordish, F. J.
†Henry, M. G.	Parkes, H. P.
†Lewis, E. C.	Pickett, R. J.
Oates, J. L.	†Viljoen, W. J. R.

* Chemistry only. † Physics only.

CONJOINT BOARD EXAMINATION.

FIRST EXAMINATION, JANUARY, 1912.

Part I.—CHEMISTRY.	Part II.—PHYSICS.
Mayer, R. G.	†Scott, F. G. L.
Millar, R. S.	*Wheldon, G. W.

* Part I. only. † Part II. only.

Part III.—ELEMENTARY BIOLOGY.

Barlow, N. A. H.	Litchfield, E. M.
Cutts, G. L.	Millar, R. S.
Forbes, J. T. T.	Moore, L. W.

Richards, G. V.

Part IV.—PRACTICAL PHARMACY.

Andrew, G. W. M.	Hoby, H. J.
Danby, A. B.	Pickett, L. R.
Digby, W. E. S.	Seabrooke, A. S.
Fry, W. K.	Wickenden, S.

SECOND EXAMINATION, JANUARY, 1912.

ANATOMY AND PHYSIOLOGY.

Dresing, H. G.	Parry-Jones, O. G.
Graham, L. A.	Partridge, W. L.
Harkness, A. H.	Saw, N. H. W.
Laborda, F. E. R.	Scott, F. G. L.

FINAL CONJOINT EXAMINATION, JANUARY, 1912.

MEDICINE AND SURGERY.

*Allen, T. S.	George, W. S.

*Hart, E. R.

MEDICINE AND MIDWIFERY.

Cole, T. P.	Jarvie, J. M.

MEDICINE ONLY.

Constant, C. F.	Jones, G. B. H.
Crosse, S. S.	Lacey, W. S.
Digby, W. E. S.	Passey, R. D.

SURGERY ONLY.

Aldis, C.	*Jepson, A. C.
*Crawford, H. G.	Pern, M.
*Gardner, A. L.	*Preston, G. L.
Gatley, C. A. R.	*Smith, Philip.

Soothill, V. F.

MIDWIFERY ONLY.

Ash, H. A.	Matthews, W.
Davies, D. A.	Newman, F. C.
Hunôt, F. C.	*Stewart, J. L.
Joly, J. M.	Watkin, P. J.
Kennedy, R. S.	Webb, H.

* Denotes completion of Examination.

Traumatic Cerebral Compression.

CLINICAL LECTURE BY C. H. FAGGE.

GENTLEMEN,—I want to talk over to-day some cases of injury to the head followed by cerebral compression.

In June, 1906, a man was admitted under Mr. Lane, who had been run over by a 'bus that afternoon. He was unconscious, was bleeding from the left ear, mouth and nose: the pupil reflexes were absent, both eyes deviated slightly to the left: he had a large hæmatoma in the left temporal region: his breathing was stertorous, and his pulse was 98. It was thought he had a fractured base, but it was possible there was a hæmorrhage, either inside or outside the dura mater, extending over the cortex, and this was suggested by a localising feature of importance, namely, a temporal hæmatoma over the left parietal eminence, therefore operation was decided upon, and no anæsthetic was required. After marking out the left motor area, a trephine was applied to the left parietal bone, and the aperture in the bone was enlarged downwards until the dura was exposed to the level of an inch above the zygoma on the left side. There was no clot between the dura mater and bone, but the dura mater beneath was of a blue colour, which discolouration Mr. Bowen (Guy's Hospital Reports, vol. 59) showed was suggestive of blood clot underneath it. The wide area of dura mater was freely incised by a crucial incision, and a large subdural clot was removed, but as in so many cases of subdural hæmorrhage no bleeding point was found. The wound was drained. There was slight temporary relief, with diminution of pulse-rate, and the patient seemed more irritable; yet he never recovered consciousness, and died seven hours after admission.

The next case is that of a man, æt. 36, who was admitted in October, 1906. He had fallen downstairs, and was picked up unconscious. He had twitchings on the left side of his face, and his eyes were upturned, the left pupil alternately contracted and dilated, a condition described many years ago by Sir Jonathan Hutchinson, and known as "Hutchinson's pupil." He also had left hemiplegia; pulse, 84; temperature, 99. Under an anæsthetic a free incision showed that the bone was extensively comminuted: the right Rolandic area was exposed, and much subdural clot removed. He never recovered consciousness, and died three day's later.

There is a boy in Cornelius at the present time, and the report says he was admitted under the care of Mr. Lane on 26th May for concussion. He was climbing, when he fell, striking his head. Subsequently it was ascertained that after momentarily losing consciousness, he recovered, and walked to Guy's with his mother, but becoming unconscious was admitted to the ward at 9 p.m., the accident having occurred three hours earlier. Later in the evening he was sick. There was a hæmatoma over the right parietal bone, and the patient said his head ached. There was slight conjugate deviation of both eyes to the right. The same evening I saw the boy, and remarked that if the statement were accurate that he was conscious on arrival at the hospital, I should expect some form of intracranial hæmorrhage. But further enquiry seemed to show that he had been unconscious when brought to the hospital, and that he had been unconscious ever since the accident, and in this particular we were, no doubt, misinformed. Remembering that conjugate deviation of eyes, even with marked convulsions of the limbs, is not uncommon in children suffering from concussion, the suspicion of intracranial hæmorrhage here did not seem sufficient to justify cerebral exploration. In that, I was wrong. Next day he was much better, almost conscious; but on the following day (May 28th) his headache returned, drowsiness increased; but the pupils were equal and reacted to light. There is no note of any paralysis. As he had had one lucid interval, and possibly two, Mr. Hughes, who was called in on Sunday afternoon, decided to operate at once. The antero-inferior angle of the right parietal bone was trephined about one-and-a-half inches above the level of the ear. When the bone was raised a quantity of semi-clotted blood escaped. More clot was scraped out, and the opening enlarged with bone forceps. A small incision was made in the dura mater to see if any blood was effused under the dura, but none was found. The opening was sutured, and the boy has made a complete recovery, and is now approaching his discharge. One learns more from mistakes than from successes, and this case, which Mr. Hughes has kindly allowed me to make use of, shows how easy it is to miss extensive middle meningeal hæmorrhage.

The fourth case is one which, at the time, attracted much interest in the Hospital, because it was that of a man, æt. 33, who was hit on the left side of the head with a golf club. He was

temporarily unconscious, but recovered consciousness, and was admitted with a deep scalp wound over the left occipital region, the anterior end of which was two inches above and two inches behind the left ear. From this blood was exuding, and the blood pulsated. A probe passed into the scalp wound confirmed the suspicion of a fracture, and a free edge of bone could be felt, namely, the upper edge of the lower fragment. He was at once operated upon, a crescentic incision being made above the scalp wound. A piece of bone had been driven into the dura mater, and this was removed. The dura mater was torn, and the brain was protruding through it. It was found, as is so often the case, that the injury to the inner table was more extensive than that to the outer. This is not simply because the inner table differs physically from the outer, because museum specimens show that when bullets have passed completely through the skull, the outer table is injured more than the inner at the point of exit. Those of you who heard the paper recently read before the Physical Society by Fleet-Surgeon Bradnell, will remember he pointed out that this was equally true with modern bullets as with the older types which are those generally employed by suicides. In this case four or five pieces of bone were chipped off from the inner table of the skull and driven in towards the dura. These were removed, the wound drained, and a week later, the notes say, the wound had healed except for a sinus in the scalp. The patient was allowed up and took exercise in the colonnade. Five weeks after coming to the hospital, however, he had a slight occasional pyrexia, the temperature rising to 100°, and more pus was being discharged from the wound than there should be from a healthy granulating wound. It was explored under an anæsthetic, but nothing definite was found. Three days later, *i.e.*, June 30th, the pulse gradually fell to 60, temperature was about 100°, and he was very drowsy. In the evening Mr. Hughes, who was at that time house-surgeon, was so interested in the case as to jot down in the report, "It is difficult to get an intelligent reply to any question; cerebration is slow, there is complete right hemiplegia, double optic neuritis, the position of the old sinus is occupied by a cerebral hernia, and over the vertex there is a distinct patch of œdema," which is known as a Potts' puffy tumour. Therefore the wound was opened up again and extensively explored, but no abscess could be found in the occipital lobe, but a large area of œdematous breaking-down brain was evacuated, and next day the pulse was 140 and the temperature 100°. On July 2nd he suffered from hyper-pyrexia, temperature 105°, and he died. At the post-mortem there was a horizontal gap in the left parietal bone, and a fissured fracture extending to the upper end of the occipital bone, early suppurative meningitis, and the brain was soft and diffluent.

These are five cases which, in many particulars, are very similar to, and in other respects very different from, one another.

In all cases of injury to the head the most important factor in the production of compression is intracranial hæmorrhage, and not the presence of depressed bone. In the case of the boy one might have thought the symptoms were solely those of a compound depressed fracture, and that the trouble was due to a diminution in size of the intracranial cavity from driving in of the bone. But it is common to find such depressions of bone causing no symptoms at all. There was a case which somewhat exemplified that fact at Out-Patients last Wednesday. The child had fallen down and produced a distinct dent on the top of its head; appreciating that the internal table is dented to a greater extent than the outer, one can suppose that the absence of symptoms was due to the fact that there was no associated intracranial hæmorrhage.

Another case of the same nature was that of a boy, æt. 6, who was admitted on March 4th last. While crossing the road he was knocked down by a taxi cab. The left side of his head struck the ground. He was conscious some time after the injury, but was admitted in an unconscious state. There was a hæmatoma on the left side of the head, which extended from a point 1½ inch in front of the ear to 1½ inch behind, the swelling did not pulsate; there was bleeding from the right ear. He vomited twice in the surgery. The pupils were contracted and equal, the eyes reacted to light and deviated downwards and to the right. There was flaccidity of the limbs. At 6.30 there were spasmodic jerkings of the right limb, followed by spasm of the right arm and right side of the face; slight spasms of the left side of the head and neck were also noticed. The temperature was subnormal, pulse 108. The left subtemporal region was exposed by a curved incision, without an anæsthetic. The ward clerk said that at this point the patient began to struggle, so chloroform was administered, but not more than 20 drops were given throughout the operation. The incision was carried through the deep structures, and the parietal bone exposed, the posterior part of which was fractured. The pieces were removed with bone

forceps. Part of the squamous portion of the temporal bone was removed, but there was no extra-dural hæmorrhage. The dura mater was then opened, but there was no effusion of blood beneath it. The wound was closed except for a small gap for the passage of a drainage tube. He gradually recovered. The pulse fell in 3 days to 90, and the temperature never exceeded 100°, and he was discharged about 6 weeks after the accident. It may be argued that his symptoms were due to depressed fracture only; yet it is possible that his condition was due to the minute blood extravasations or the outpouring of serum, which are probably the compressing causes in concussion, rather than to bony compression. Even where there is no scalp wound, or when on trephining no fracture is found, it is important to remember there may be grave hæmorrhage giving rise to the symptoms, and that evacuation of clot is necessary in order to get the patient well.

Similarly one must agree that where a gradually progressing coma, associated with bleeding from the ear, nose, or mouth occurs, often associated with a paralytic or an irritative lesion of one of the intracranial nerves—the 8th being the most likely nerve to be involved—the possibility of relieving the cerebral compression by operation must be considered, for otherwise extreme compression may kill the patient. I do not say we should operate in every case of fractured base, because in many, where the bleeding occurs from a sinus and originates around the base, it may be impossible to diagnose it or evacuate it. Again, in similar cases when the hæmorrhage has ceased and the patient is still suffering from extreme compression the condition may be relieved by doing a subtemporal decompression operation, for by incising the dura, exposed by a large trephine opening under the temporal muscle, the pressure is relieved and the intracranial mechanics will return to normal even though the effused blood be left alone.

Hæmorrhage causing compression may be extra-dural, as in the case of which I read the notes and in which Mr. Hughes's operation brought about such a satisfactory result, and in this position it is usually due to a ruptured branch of the middle meningeal artery. On the subject of middle meningeal hæmorrhage you will do well to read Mr. Jacobson's paper in the Guy's Hospital Reports of 1886. If you could read it before you became ward clerks, you might copy some of his graphic description and his fluency of diction, for it will interest you as a literary treat, apart from the way in which it comprises all that was known, and nearly all of what is now known on the subject of middle meningeal hæmorrhage. He regards middle meningeal hæmorrhage as extra-dural, and extra-dural hæmorrhage as middle meningeal, as if they were synonymous terms, and while this is generally true, one must remember that the dura mater under the middle meningeal artery may be ruptured and sub-dural hæmorrhage result; and conversely that a torn sinus may cause extra-dural hæmorrhage.

There is another interesting paper in the Guy's Reports, vol. 59, by Mr. Bowen, to which I have referred, in which he collected 72 cases of sub-dural hæmorrhage; of these, 51 were operated upon, and 28 (55 per cent.) recovered. In these cases, where coma and other compression symptoms suggested that intracranial hæmorrhage existed, the extra-dural space was, in nearly every case, found to be normal, but large clots were seen underneath the dura mater, as was evidenced by the alteration in the colour of the dura mater owing to the blood showing through its translucent wall. Mr. Bowen's paper points out that in the majority of these sub-dural hæmorrhages bleeding took place from the vessels which ramify in the pia mater, and which generally bled into the subarachnoid space. A large proportion of these cases were similar to the first one of which I read you the notes, in which there was an extensive hæmorrhage with definite clots localized in the subarachnoid space; in others, there was diffused ill-defined hæmorrhage throughout the whole substance of the pia. It is interesting to note that all those cases in which such sub-dural extravasation was associated with severe cerebral laceration, the patients died, even after operation for the relief of compression. One learns much about the pathology and treatment, as well as the diagnosis of these conditions from Mr. Rawlings' Hunterian Lectures, 1904. On the point I am referring to he says that a sub-dural hæmorrhage may be due to a torn intracranial sinus; for instance, if with a linear fracture of the skull, a sinus, such as the lateral or the sigmoid sinus in fracture of the base, or the superior longitudinal sinus in fracture of the vertex, is torn, it is not uncommon for the hæmorrhage to take place into the sub-dural space. But Bowen is of opinion that, though possibly it may occasionally arise from a torn meningeal artery with rupture of the dura, or from a torn sinus, the sub-dural hæmorrhage is due in a large majority of cases to laceration of the vessels ramifying in the pia mater. It is clear that surgically nothing, or very little, can be done

to stop the bleeding under these conditions, but its results can be dealt with, and possibly the clot, if it is local in extent, can be evacuated, and so prevented from spreading over a large area. In Mr. Bowen's series of 36 cases of this kind in which there was no associated brain laceration, 22 recovered after operation.

Thirdly, the hæmorrhage may be neither extra-dural or sub-dural, but intra-cerebral. There is no advantage in diagnosing extra-dural from sub-dural hæmorrhage, and it is not generally possible: the treatment must be the same in both cases. In both sub-dural and the extra-dural hæmorrhages, the classical feature is that the patient has a "lucid" interval. One cannot insist upon that too much, and it is often the only point of value in diagnosis. If in the case of the small boy in Cornelius ward a lucid interval had been vouched for, I should have advised operation, but in its absence he went for another forty-eight hours without being trephined. Again, in sub-dural hæmorrhage it is common to find that the patient has what Bowen called a "latent" interval. He pointed out that perhaps paralysis, fits, even rigidity of the limbs might be observed, and yet the patients were not unconscious. After a variable period, extending in one case to twenty-one days, the patient became unconscious. This latent interval is typical of sub-dural hæmorrhage, and tends to differentiate it from the extra-dural form, commonly known as middle meningeal hæmorrhage. A recent advance in diagnosis has been afforded by the fact that if, in sub-dural hæmorrhage, a lumbar puncture is made, the evacuated fluid should be bloodstained, whereas in extra-dural hæmorrhage the fluid will be clear.

The usual symptoms which suggest that a patient is suffering from an intra-cranial hæmorrhage of traumatic origin, either inside or outside the dura, without cerebral laceration, are: that the patient, after a period of dizziness or unconsciousness, recovers consciousness, perhaps momentarily or possibly for some hours or days, and then he becomes unconscious again, and associated with this is a subnormal temperature and slow pulse; or the temperature is only slightly raised. The pulse is usually full and slow, and the patient occasionally vomits. Apart from these symptoms, there may be a local lesion such as a bruise or scalp wound, or even a fracture, which can be located with the probe or the finger. Beyond this there are no localising signs, and in the absence of any of the above diagnosis becomes a matter of great difficulty. The only case of middle meningeal hæmorrhage which I had to deal with as house-surgeon, was that of a man in whom operation could not be decided upon until the patient was moribund, because no localising physical signs were present, and symptoms were at first anomalous. If there are any motor lesions in middle meningeal hæmorrhage, they are usually paralytic, and there may be either unilateral paralysis of the arm and leg, or there may even be paralysis of both arms and both legs. In the case of the man I have last referred to, the lesions were irritative, giving rise to convulsive movements on the opposite side. In the case of the boy on whom Mr. Hughes operated, there were no paralyses. In the case of the man, whose notes I read to you second, who was found to be suffering from a large sub-dural hæmorrhage, there was paralysis of the opposite half of his body. I do not want you to expect in any case definite information of this nature, because it is dangerous to suppose that in every case of extensive middle meningeal hæmorrhage, or hæmorrhage from other causes which is either outside or inside the dura, even if it extends over the whole motor area, there will be motor symptoms: their presence or absence seems, therefore, of doubtful diagnostic value.

The only other point of diagnostic value concerns the pupil. The matter may be expressed in a few words by saying that the side of the dilated pupil is probably the side of the cerebral compression. Sir Jonathan Hutchinson drew attention to this condition of pupil on the same side as the lesion, and it is called Hutchinson's pupil; at first the pupil is seen to contract and later to dilate, becoming fixed and not reacting to light, and in fact undergoes no further changes. So in an advanced case, assuming that by this time the patient is completely unconscious, you should get a contracted pupil on one side, a dilated pupil on the other, and on the latter side a lesion of the cortex, and possibly paralysis of the opposite half of the body. But, as a rule, you cannot found an exact diagnosis on the pupil, for in Bowen's 72 cases there was definite Hutchinson's pupil in only four. In nearly half the cases the pupils were unequal. In many cases you may be fairly certain that the patient has intracranial hæmorrhage, and in the absence of any paralysis or of a definite superficial lesion, the pupillary may be the only sign on which you have to depend. A superficial lesion may be a disadvantage, as, for instance, when a wound on the left side is associated with a dilated pupil on the right, it is possible that the symptoms are due to a minute or gross

intracranial hæmorrhage on the right side, the brain being injured by contre-coup, by which we mean that the brain is driven violently against the inner surface of the opposite or right side of the skull, and the blood vessels are ruptured, hæmorrhage taking place on the cortex. In such a case when the pupil of the right side is dilated, even though the superficial lesion is on the left side, the pupil change will be of greater importance as suggesting that the loss of consciousness and other symptoms are with the dilatation of the right pupil due to intracranial hæmorrhage by contre-coup of the opposite side to the superficial wound.

There are further general symptoms in these cases. The majority have albuminuria, which raises another important point, namely, the diagnosis of a comatose patient with a scalp wound, as to whether he fell down, injured his head in so doing and so became unconscious, or whether he became unconscious and so fell down. You know the difficulties which occur in the front surgery in this connection, as to whether a man having a scalp wound was drunk, or whether he has got a grave intracranial lesion causing his coma. Remember that a few hours after such a head injury the patient has albuminuria.

Careful systematic examination will, in a small proportion of cases, elicit the fact that the patient has conjugate deviation of the eyes, and this seems to be only important in that it is a symptom of grave prognostic import: both eyes are turned to one side, and if this is associated with paralysis, *i.e.*, if a man has paralysis of the right half of his body, due to injury to the left side of his head, and associated with this there is conjugate deviation of his eyes, the deviation of his eyes will be towards the lesion; but if, from an injury to the left side of his head, an irritative lesion of the left cortex results, and he gets fits and convulsive movements on the right side of his body, the conjugate deviation will be towards the convulsed side, that is to say, away from the lesion. So you have to determine whether the deviation of the eyes is associated with a paralysing or an irritative lesion. If it is paralysing it is towards the lesion; if it is irritative it is away from the lesion.

I cannot suggest any means by which you can definitely diagnose that an intracranial hæmorrhage is due to brain laceration. The most suggestive points is that the symptoms ar often associated with, or must apparently be due to, a lesion of the opposite side of the brain to the superficial injury; that is, there is cortical hæmorrhage by the process I spoke of as contra-coup. These cortical hæmorrhages are nearly always irritative in their effects and may be transient in duration, even though the patient may die from an increasing compression from cerebral œdema.

With regard to treatment, I have very little time in which to say anything, but when possible operate early, for I am certain that we are too little inclined to explore most of these cases owing to doubts not only of the nature but also as to the position of the lesion, because fractures of the vault are so often complicated by fractures of the base. For instance, a man is brought in unconscious, bleeding from the ear, and one decides that his symptoms are probably due to fracture of the base, and think that no good can result from operation; yet he may be dying from compression due to extra-dural hæmorrhage, owing to a basal fracture running up through the vertex. Where the symptoms are definitely focal, you should err on the side of exploration. And in most cases it is best to expose the fissure of Rolando, or the middle meningeal artery. On the point of method I have only to say that I think it is as easy in all cases to explore the intracranial space with a gouge and hammer as it is with a trephine, and with less probable risk of doing harm; again, it is easy with bone-cutting forceps to enlarge the opening after making a small opening with the gouge. I think there is no advantage of doing an osteo-plastic resection of the skull for these traumatic lesions, nor is it usually possible so to plan the operation that you shall be able to return the bone removed to its position between the dura mater and the scalp. If the opening is a large one, as it must be to be successful, there will be many pieces of bone to return, and primary union may probably be delayed by necrosis of small particles of bone. Even if one removes the bone in one piece by osteo-plastic resection, as just mentioned, it is common to find that the area of bone first removed is not exactly that which is required; it is too big in one direction, and not big enough in another. And removal of additional portions of bone means that a gap is left, and that the bone returned does not fit accurately. Bone defects tend to fill up, and otherwise are easily protected by silver plates, and in fact Mr. Hughes's patient is now wearing a plate over the side of his head, which reminds me that in my first year at Guy's the best bat in the cricket team, always played

with a silver plate over the lower part of his left parietal bone. As a small boy, he had been trephined by Sir Henry Howse, for middle meningeal hæmorrhage, and rumour recorded that he was one of the earliest successful cases.

Guy's Hospital Dental Society.

ANNUAL DINNER.

The Seventeenth Annual Dinner of the above Society was held in the Empire Rooms at the Trocadero, on Saturday, January 20th. Mr. J. Lewin Payne presided over a very large company, numbering 228, and beating the previous record by 33. Among the guests were:—Dr. Hale White, Dr. H. C. Cameron, Dr. H. L. Eason, Mr. Mollison, Mr. E. C. Hughes, Mr. W. A. Maggs, Mr. Sidney Spokes, Mr. J. F. Colyer, Mr. W. H. Dolamore, Dr. Wm. Wright, Mr. W. H. Coffin, Mr. W. Rushton, and student representatives from the Royal Dental Hospital, the National Dental Hospital, the Birmingham Dental Hospital, and the London Hospital Dental School.

Two years ago, in our report of the Dental Dinner, we commented on the innovation whereby speeches were omitted, and expressed the hope that the old custom might be reverted to, at any rate in reason. We were glad to see, therefore, that speeches were again this year to form part of the dinner, if only for the sake of hearing Mr. Hopson, who delivered what may justly be termed the speech of the evening. In presenting to Mr. W. A. Maggs, on behalf of the Dental Society, a handsome salver, Mr. Hopson made a most humorous and entertaining speech. In a pleasantly reminiscent vein he described the beginnings of the Dental School at Guy's, and told us how, from that time to this, no one had worked harder or more consistently on behalf of the School than Mr. Maggs. To have lectured for 21 years on Dental Anatomy and not become a museum specimen oneself showed, for one thing, no small merit. Mr. Hopson went on to comment on the chief vice of his retiring colleague, which he said was a horrible persistent punctilious punctuality; indeed, he believed it had become the custom to set the chapel clock each week by Mr. Magg's 8.55 on Thursday mornings. Touching the deeper note, Mr. Hopson said that old Guy's dental men all over the world owed such success as had been theirs to the right teaching and generous help of Mr. Maggs.

Mr. Maggs, in thanking the Society for their present, gave some of his experiences as an examiner, and the amusing answers of some candidates. He mentioned that between six and seven hundred Guy's men have passed the L.D.S. Eng. since the origin of the Dental School.

"Guy's Hospital and Schools" was proposed by the Chairman, who described some of the changes and additions to the buildings of the Dental Department that are in progress, and appealed for donors of new dental chairs, costing £15 each, for the enlarged Conservation Room. Dr. Hale White replied on behalf of the Hospital, and Dr. Eason for the Medical and Dental Schools. Reference was made by several speakers to the Dental School which has recently been founded in connection with the London Hospital, and, as Dr. Eason said, there is no flattery like imitation. Our policy at Guy's with regard to our new and flourishing rival, however, must be on the analogy of the two-power standard—"Two chairs to their one," and two students to their one. Dr. Eason said that the evidence before the Royal Commission on University Education in London had brought out the fact that the Guy's Dental School, although it has been founded only 23 years, numbers 170 students, and is the largest school in London or in England.

Dr. Wright, the Dean of the new London Hospital Dental School, replied to the toast of "The Visitors," proposed in felicitous terms by Mr. H. C. Malleson. Dr. Wright spoke of the rivalry of the two hospitals in work and sport, reaching its climax towards the end of March on Richmond's fatal field. The rivalry of their Dental Schools should, however, be forgotten in their common opposition to the great grievance of the dental profession, *i.e.*, unqualified practice.

The toast of "The Dental Society" was proposed by Dr. Cameron, in the unavoidable absence of Mr. Charters Symonds. Mr. Wynne Rouw replied. The Chairman's health was proposed by Mr. Guy Neely, and Mr. Lewin Payne, in replying, proposed as an additional toast, not on the list, the health of the energetic secretary, Mr. W. S. Stranack, who must certainly be congratulated on the record success of the dinner.

During the evening Miss Gertrude Reynolds and Mr. Reginald Walter with songs, and Mr. Stuart Parsons with recitations, entertained the company.

It is satisfactory to note that in response to the chairman's appeal for the endowment of dental chairs in the new Conservation Room, promises sufficient to purchase fourteen and a half chairs were forthcoming at the end of the dinner. Further details of this appeal will, we hope, appear in our next issue.

Charles Dickens—and us.

1812–1912.

With all the world celebrating the centenary of Charles Dickens's birth on February the 7th, it is not inappropriate that we should pass in review a few of the places and characters from his novels which are of special interest to the Guy's man.

It would be far too large a task to enumerate more than the Dickens localities situated within our own district, or to glance at personages other than those more or less intimately connected with hospital life.

The old "George Inn" may or may not be the veritable "White Hart" that Dickens had in his mind when he described the meeting place of Mr. Pickwick and Sam Weller; but, at least, it is the one example, incomplete though it be, to be found in London, of the many old galleried coaching inns which once existed on either side of the Borough.

Of the Marshalsea Prison "a few doors short of the Church of St. George in the Borough of Southwark, on the left-hand side of the way going southward," where the Dorrit family and John Dickens were confined, no more than a wall remains; but the Church of St. George the Martyr, with its vestry, which thrice played a part in the life of Little Dorrit, is unaltered. Lant Street, too, remains, where little Charles Dickens, in "that slow agony of his youth," the blacking factory period, was established in the lodgings, "with a pleasant prospect of a timber-yard," which were subsequently tenanted by Mr. Sawyer, and, later still, by David Copperfield, when the Micawbers were detained in the King's Bench Prison.

The latter prison, long since disappeared, was situated in the Borough Road, not far from its junction with High Street; and the Royal Arms, which once adorned its portals, are said to be those now set in the wall of a public-house in the narrows of Newcomen Street.

The Obelisk of St. George's Fields, where the long-legged young man defrauded David Copperfield of his box and his half-guinea, has changed its site, but "the golden dog licking a golden pot," in the Blackfriars Road, which Forster's "Life" tells us, attracted little Dickens returning from the Hungerford market factory, may still be seen at the corner of Little Charlotte Street.

Another of the boy Dickens's (or Copperfield's) early morning haunts, awaiting the time for admission to the Marshalsea (or King's Bench) appeals to us more intimately; "Old London Bridge, where I was wont to sit in one of the stone recesses, watching people go by, or to look over the balustrades at the sun shining in the water, and lighting up the golden flame on the top of the Monument." The old alcove in our own Park must have its memories.

The river stairs "on the Surrey bank and on the same side of the bridge as St. Saviour's Church"—(Cruikshank's plate is reversed), saw the meeting of Rose Maylie and Nancy, while Noah Claypole, listening, crouched in the darkness of the arch.

One of the lurid closing scenes of the same drama was enacted in Rotherhithe, below St. Saviour's Dock in the district, none too wholesome even now, extending between the extern's Hickman's Folly and the Thames. Here Sikes met his fate, hanging in the rope by which he would have escaped over the shallow Folly Ditch, which at high tide surrounded Jacob's Island.

In Shad Thames was Quilp's yard, where now is Butler's wharf.

The Guy's Pageant has commenced Enters a coarse, stout, thick-set young man, with black hair cut rather short, and a white face cut rather long. He is embellished with spectacles, and wears a white neckerchief. Below his single-breasted black surtout, buttoned up to his chin, appear a pair of pepper-and-salt legs and imperfectly polished boots. His coat shows no vestige of linen wristbands or shirt-collar. He presents, in short, rather a mildewy appearance, and emits a fragrant odour of full-flavoured Cubas.

With him is another young gentleman in a coarse blue coat—a hybrid between greatcoat and surtout, exhibiting the slovenly smartness and swaggering gait characteristic of those who shout and scream in the streets by night, call waiters by their Christian names and (a crime no longer in the calendar) smoke in the streets by day. He wears plaid trousers and a large rough double-breasted waistcoat, and in ungloved hands carries a thick stick with a big top, and on the whole looks like a dissipated Robinson Crusoe.

These, ladies and gentlemen, are Mr. Benjamin Allen, and his very particular friend, Mr. Bob Sawyer, a couple of Sawbones (or, rather, 'they ain't reg'lar Sawbones; they're only in trainin'')—fine fellows; very fine fellows; with judgments matured by observation and reflection; and tastes refined by reading and study (Pickwick); 'breakers of the arms and legs of the poor people in the hospitals,' 'young cutters and

Sawyer, late Nockemorf, sent for!

carvers of live people's bodies' (Mrs. Raddles); in short, students of medicine at Guy's Hospital in the Borough of Southwark in the reign of His Majesty, King William the Fourth.

This in the days when Sir Astley Cooper had raised the hospital to a position pre-eminent among the medical schools of London. "Pickwick" was published within a year of the final severance between Guy's and St. Thomas's, and the latter hospital had entered on a period of eclipse, overshadowed by the new brilliancy of the younger of the Borough hospitals, whose only rival of the first magnitude was now St. Bartholomew's.

Sir Astley, after holding lecturerships to the United Hospitals, had been appointed Surgeon to Guy's in 1800, and from that date his professional reputation had steadily increased, and with it his personal charm had conquered the laity. The "Mary" of Tom Hood's "Pathetic Ballad," whose

> ". . . . legs are gone to walk
> The hospital at Guy's,"

and whose other members represented different divisions, was not alone, in that

> "Sir Astley has my heart."

Charles Lamb (Last Essays of Elia; Ellistoniana) had already told us of "Sir A —— C——, the best of story-tellers and surgeons, who mends a lame narrative almost as well as he sets a fracture." So that we may realize that it is in no unkindly spirit that Dickens refers to Mr. Hardy, "the funny gentleman" (The Steam Excursion: Sketches by Boz) as "an Astley Cooperish Joe Miller."

But to return to our Sawbones "overflowing with fun and kindly spirits" (—one on 'em's got his legs on the table, and is a-drinkin' brandy neat, vile the t'other one—him in the barnacles—has got a barrel of oysters atween his knees, wich he's a opening like steam!) in order to study the eccentricities of genius.

It is with a certain sense of familiarity that we hear them discussing "parts" in a mixed assembly, and it is surely not so long ago as 1836, when we last heard an agreeable anecdote about the removal of a tumour on a gentlemen's head, illustrated by means of an oyster knife and a quartern loaf! Latter-day Sawyers and Allens continue pretty true to type.

Shall we just look in at Bob Sawyer's lodgings, "Lant Street, Borough: it's near Guy's, and handy for me, you know. Little distance after you've passed St. George's Church turns out of the High Street on the right hand side of the way" to get a glimpse of the "few medical fellows" who are to meet there?

Here is Jack Hopkins of Bartholomew's wearing "a black velvet waistcoat, with thunder and lightning buttons," (dressy fellows, these Bart's men!) "and a blue striped shirt with a white false collar." And here are "a large-headed young man in a black wig" who brings with him Mr. Noddy, "a scorbutic youth in a long stock." Next comes Mr. Gunter "in a shirt emblazoned with pink anchors" (it's mostly socks and ties they run to now-a-days, isn't it?), "closely followed by a pale youth with a plated watch-guard;" and, finally, "a prim personage in clean linen and cloth boots" who tells long-winded stories and forgets the point. The chronicler mercifully refrains from telling us to which hospitals these strange creatures belong. As Mr. Hopkins remarked, "Very singular things occur in our profession, I can assure you, sir."

But time and space press, and we must leave that first floor front and the oysters that couldn't be opened, the spirits from the wine-vaults in High Street, and the story of the "Child with the croup in the wrong place," the *vingt-et-un*, and the rum punch, and Mr. Benjamin Allen in tears, with his hat over his eyes, knocking double knocks at the door of the Borough Market and taking short naps on the steps, alternately; and go to Bath to observe whether practice has had a sobering effect on Mr. Sawyer, if it has not made him perfect.

We may linger a moment over the advertising devices of Sawyer, late Nockemorf, since such things have a historical interest, and are, of course, impossible at the present day.

The equipment of the dispensary is of the most meagre description, "hardly anything real in the shop but the leeches, and *they* are second-hand." The duties of Cripps, the surgery boy, appear to consist entirely in leaving medicines at wrong houses, and subsequently retrieving them with full explanations—"the name gets known; and that's the thing, my boy, in the medical way," and in summoning Mr. Sawyer from church, just before the psalms, when the people have got nothing to do but to look about 'em, with horror and dismay depicted on his countenance, "Bless my soul," everybody says, "somebody taken suddenly ill! Sawyer, late Nockemorf, sent for. What a business that young man has!"

We can do no more than see these two—the practice has long since failed—safely into the I.M.S., under the East India Company, with the prospect of fourteen attacks of yellow fever apiece, and subsequent recovery.

Before leaving this pair of humorous young ruffians, predecessors by a generation of similar

scoundrels depicted for us by Albert Smith, let us put on record that, whatever their failings, their achievement is that they have made the name of Guy's Hospital known and remembered in the four quarters of the globe, and in places where not even the fame of Cooper, Addison, and Bright, or even our modern heroes has penetrated.

We will not linger over the next figure—that "honest tradesman" Jerry Cruncher, from the Tale of Two Cities, a camp-follower of science, a resurrectionist.

Little Dorrit's "Maggy" comes next, the type of grateful patient. It is nowhere stated explicitly which was the hospital of her pleasant recollections, but with epithets so appropriate, who shall blame us if we fit the cap to our own head?

"But what a nice hospital! So comfortable, wasn't it? Oh, so nice it was! Such a 'Ev'uly place! Such beds there is there! Such lemonades! Such oranges! Such d'licious broth and wines! Such chicking! Oh, ain't it a delightful place to go and stop at! Oh, ain't it d'licious! ain't it hospitally!"

But what is that? "A peculiar fragrance borne upon the breeze as if a passing fairy had hiccoughed and had previously been to a wine-vault"?

A fat old woman with a husky voice and a moist eye, and with very little neck; her face—the nose in particular—somewhat red and swollen; wearing a very rusty black gown rather the worse for snuff, and a shawl and bonnet to correspond; carrying a large bundle, a pair of patterns and a species of gig-umbrella—it must be; it is—Mrs. Gamp!

We are going to claim Mrs. Gamp as "one of us!" Our evidence is not direct but the inferences are plain. Betsey Prig (the best of creeturs) "was recommended from Bartholomew's"; let us retort with Sairey from Guy's! A Keats to their Shelley!

She was English, of course. Note the magnificent contempt for "the lesser breeds without the law." "Some people may be Rooshans, and others may be Prooshans, they are born so, and will please themselves—Them which is of other naturs thinks different."

She was London trained, "Drat them country nusses, much the orkard hussies knows about their bus'ness," and, at least, she definitely had one direct concern with this establishment. "When Gamp was summoned to his long home, and I see him lying in Guy's Hospital with a penny-piece on each eye, and his wooden leg under his left arm!" and "if certain whispers current had any truth in them . . . had disposed of Mr. Gamp's remains for the benefit of science." What further proof is necessary?

She had her failings, of course; yet we have it on the best authority, she was "worth her weight in goldian guineas," a woman "as would see her fellow creeturs into fits to serve her friends"; "a sober creetur to be got for eighteen pence a day for working-people and three and six for gentlefolks—night-watching being extra."

And if she *did* have a predilection for a fluid diet, in which figured "a pint of mild porter at lunch, a pint at dinner, half a pint as a species of holdfast or stay between dinner and tea, and a pint of the celebrated staggering ale or Real Old Brighton Tipper at supper; besides the bottle on the chimneypiece, and such casual invitations to refresh herself with wine as the good breeding of her employers might prompt them to offer her;" in extenuation be it said that her teeth were "tender and not too many of 'em; which Gamp himself at one blow, being in liquor, struck out four, two single and two double;" and that on occasion she could relish "a sparkling cup of tea." And she had had her family troubles—her children "has fallen out of three pair backs, and had damp door-steps settled on their lungs—and one was turned up smilin' in a bedstead unbeknown."

On the whole we may agree with Mr. Mould, the undertaker, when he said, "She's the sort of woman, now, one would almost feel disposed to bury for nothing; and do it neatly, too!"

Still, Mrs. Gamp has this claim to our regard, that, to a great extent, she helped to abolish herself and her likes, and although she lived well before the days of the hospital romance, her supplementary "mortar" is worthy to be inscribed in letters of gold on the Home:—

DON'T TRY NO IMPOGICIAN WITH THE NUSS, FOR SHE WILL NOT ABEAR IT.

W.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

Guy's Hospital Physiological Society.

The Sixth Annual Dinner of this most flourishing of Societies was held on January 25th, and was marked with the same enthusiasm and good spirits which attach to all meetings of what we would prefer to call the Pembrey Club. Had there been a Wassail bowl we feel sure it would have circulated freely, but as it was, mere every-day bottles made an admirable and efficient substitute, and at any rate showed us that physiologists, or at any rate, some physiologists, are, after all, only human.

One of the great features of these annual dinners is the thorough manner in which the spirit of democracy, which is the Society's boast and pride, pervades the whole evening. At most dinners the snobbish custom by which only one or two, or at most three or four, make speeches is still observed, but here everyone has his turn, one great advantage of the system being that every member is pleased with the excellence of at least one of the speeches. Most of the inhabitants of the laboratories, *i.e.*, frogs, snails, etc., have on previous occasions taken part in the dinner, in the capacity, of course, of courses; but we must admit that the absence of any of the fraternity this year filled us with a great sense of relief, though even now we have an unpleasant suspicion that the . . . *may* have been . . . after all! However, it is best not to look a gift horse in the mouth, especially if it is stewed!

But come, dull prose, I'll fling thy curb aside
And bid the Muses aid my laggard pen.
I am a devil when I get my stride
(The accent you will note is on the when).
And somehow verse seems much more à propos
When wine has gone the way it ought to go.

Now speech succeeds to speech, and song to song,
And glasses fill and empty yet again,
And Layton's pipe at last is going strong,
And Pembrey almost misses his last train;
While Hertz and Ryffel eagerly discuss
The sucking powers of an octopus!

Ha, Ha! The jest is good; what's that I see?
Two chairs; and yes, two Pembreys in them, too.
Fill up the bumper, let the wine flow free,
And drink as physilolo-hic-gists do!
Pass me the glass, nor heed the speeding time,
The world's a bumper, and the vintage prime!

[At this point our reporter succumbed.—Ed., G.H.G.]

. . . . . .

The dinner was a very successful one. Mr. Layton's speech in giving the health of the chairman fulfilled the demands which custom has made on this toast, while Dr. Pembrey, in replying, pointed out the undoubted advantage which accrued to Guy's physiology from the work of the Society. Several other excellent speeches, and songs from many of the diners, contributed to the very enjoyable evening, for which the secretary, Mr. Liebson, and the Committee earned the thanks of all who were fortunate enough to be present.

Correspondence.

To the Editor of Guy's Hospital Gazette.

The Testing of Urine for Sugar and Albumen.

Sir,—The present generation of Guy's students, as judged by my own Out-Patient Clerks, have been using for the last few years a method of testing for sugar in urine by Fehling's solution, which is so fallacious that it ought to be exposed. I know of no way of doing so other than by writing a letter to you on the subject. The method in question is as follows:—Equal quantities of Fehling's solution and of urine are heated in separate test-tubes, and when both are boiling, the urine is poured into the Fehling's solution. The mixture is not further heated. If no reduction takes place, the urine is said to be free from sugar. The fallacy of this method is that it will not demonstrate the smaller percentages of sugar which are commonly present in cases of glycosuria or of diabetes when being dieted. In order to perform the test properly, the mixture of Fehling's solution and urine must be vigorously boiled for 15 to 20 seconds; if then no reduction has taken place, the urine may be called sugar-free. The smaller the percentage of sugar present, the longer is the latent period before the boiling mixture shows any reduction; in fact, a rough idea of the percentage of sugar present can be gathered by observing the length of the latent period. It is quite common to test a urine in which no reduction takes place until the mixture has been vigorously boiled for several seconds. I do not know the source of the erroneous method of using Fehling's solution referred to; it may be derived from a book or from an individual, it certainly does not come from the Physiological Department. But this I say emphatically: whoever did start it at Guy's can know nothing about even the elements of testing urine.

There is another simple fallacy connected with a test for urinary albumen of which the average student appears to be blissfully ignorant. I refer to the test by heat. I find that the method in use of applying the test is as follows:—The urine is tested with blue litmus-paper; if the paper shows the slightest pink colour, the urine is then heated in a test-tube, and if the upper part remains clear, albumen is said to be absent. The fallacy is that a urine amphoteric to litmus-paper may contain a large quantity of albumen, and yet not a trace of haziness appears on boiling. Such a urine from a case of chronic Bright's disease was seen at Out-Patient's a week ago. In order to use the heat-test properly, the urine, before it is boiled, must be definitely acid to litmus, and not merely amphoteric; if not already acid, dilute acetic acid must be added until it is.

I must apologise for occupying your space with such elementary details. It is serious, however, to contemplate that we may be turning out students liable to overlook either sugar or albumen in urine.—Yours, etc.

A. P. BEDDARD.

Further Statistics from the Skin Department.

DURING the twelve weeks ending December 19th, 1911, 912 new cases were seen and treated in the Skin Department, an increase of 177 over the previous twelve weeks. The following is a list showing the various diseases treated, with the percentages in which they occurred:—

Impetigo	21·5 per cent.
Eczema	13·5 „
Tinea tonsurans	11·0 „
Scabies	7·3 „
Pyodermia	5·0 „
Impetigo a pediculis ...	4·7 „
Psoriasis	3·8 „
Alopecia areata	3·0 „
Urticaria	2·8 „
Varicose ulcers	2·6 „
Tertiary syphilides ...	2·6 „
Application dermatitis ...	2·3 „
Tinea circinata	2·0 „
Acne vulgaris	1·6 „
Warts	1·3 „
Pediculi vestimentorum ...	1·0 „
Herpes Zoster	1·0 „

The remaining 13·7 per cent. was composed of the following diseases in the order of their frequency:—Furunculosis, xerodermia, lichen planus, seborrhœa, lupus vulgaris, lupus erythematosus, seborrhœic sycosis, nævi, secondary syphilides, varicose eczema, acne rosacea and variolariformis, favus, lichen pilaris, peliosis rheumatica, herpes catarrhalis, pityriasis rosea and rubra, pruritus senilis, animal ringworm, herpetiform dermatitis, rodent ulcer, pustular tuberculide, herpes gestationis, erythema nodosum, erythema multiforme, seborrhœic dermatitis, pustular dermatitis, purpura, carbuncle, recurrent scarlatiniform dermatitis, tinea sycosis, vaccinia, sulphur rash, pediculi capitis, congenital syphilis, ichthyosis hystrix, and unclassified conditions.

Comparing these percentages with those published in the GAZETTE on October 28th, 1911, very little variation is seen. As before, impetigo, eczema, and tinea tonsurans again make up 50 per cent. of the whole. Urticaria sinks from 7·0 per cent. to 2·8 per cent., and psoriasis rises from 2·3 to 3·8 per cent.

It is interesting to note that cheiropompholyx (dysidrosis) is absent entirely, whereas during the previous three months it showed a percentage of 1·3. Scabies, on the other hand, has risen from 4·5 to 7·3, suggesting that the tendency of crowding together at night during cold weather may aggravate the spread of this class of disease.

E. S. T. AND B. R. P.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

British Pharmaceutical Codex, 1911. 10s. 6d. net.

This is the second edition of a volume first published in 1907, and is the direct descendant of the old *Formulary* produced by the British Pharmaceutical Conference, the object of which was to provide a standard for medicines not included in the British Pharmacopœia.

The rights in the *Formulary* have been acquired by the Pharmaceutical Society by whom the present volume is published. It is, perhaps, one of the best pieces of constructive work that body has undertaken. One of the disadvantages of the last edition was that there was no distinction made between the articles not included and those contained in the Pharmacopœia, so that great difficulty was experienced in deciding which were the official articles and which were not.

In this edition all official articles are labelled B.P. The work is arranged in two sections, the former being of chief interest to prescribers. It comprises all the drugs in general use. The characters and test are then specified and the actions and uses briefly described. For purposes of easy reference such words as "administered," "soluble" and "incompatible" are printed in thicker type. After the description of the drug the preparations which may be prescribed are enumerated. This should be a great convenience to the prescriber who can see at a glance what preparations are available.

The second part of the work is composed of the *Formulary* and is chiefly intended for the pharmacist, since working details for the preparations are given. The quantities for these are stated in the Imperial system and in parts per 100 so that metric weights can be employed throughout.

Space does not permit of any detailed account of the preparations, but it may be stated that this volume is the only authoritative standard for such every day articles as Extract of Malt, Ether Soap (Liquid Saponis Ethereus), Compound Syrup of Hypophosphites, Chemical Food, etc., and that the letters B.P.C after the names in prescriptions will ensure the patient always getting the same standard in any part of the country.

Among points of interest may be noted that the Formaldehyde Tablets are made from practically the same formula as those so largely used at Guy's, also that in order to avoid confusing eye ointments with ordinary ointments a special name, Oculentum, has been coined for the former (presumably to call them vaselines as at Guy's was not permissible on account of trade-mark rights). The book will repay perusal and it will become a necessary adjunct to every practitioner's book-shelf.

Sport.

Rugby Football.

GUY'S v. OXFORD UNIVERSITY.

Although the ground at Honor Oak Park was absolutely soaked for this game on Wednesday, January 24th, the play was not affected to anything like the extent that one would think, although it must be confessed the Varsity side found it difficult at times to keep their feet. The home side soon became accustomed to the heavy conditions, and, putting up a good forward fight, they were soon in the Oxford 25. Here Guy's, who had the valuable assistance of G. R. Hind in the pack, got the ball from the scrums, and Stokes made a determined attack, a fine run, which Sampson stopped with a thorough tackle. Sampson played well, and if the Varsity had had a less steady full-back they would have had their line crossed with frequency. Again the Guy's attack developed to the right, and Oxford touched down in defence. However, only a few minutes had elapsed before, from some close play near the line, the ball was kicked over, and Anthony dashed after to score. Stokes goaled well. Nothing more was scored before the interval, but Oxford put in some useful rushes, although it was evident that Brown had great difficulty in keeping his pack together. Behind the scrum Knott was the only man who really shone, excepting always Sampson, and Holdsworth was so weak in the centre that Harkness and Pritchard both gave full attention to Dingle.

After half-time Broster and Knott got their backs away, but Stolz knocked on. Then came a grand try. A scrum ten yards from touch by the corner flag, Guy's heeled, Davies feinted to pass on the field side and swung to Medlock on the blind; Medlock was in beautifully. Both halves deserved the applause they received. Stokes' attempt at goal was good, but just wide. The forwards were now right on top, keeping the pace up splendidly, every man a worker, they kept Oxford defending. Harkness then made a great opening for Daw to accept and gain a try, which Stokes failed to goal. Then Davies got Medlock off; Stokes accepted the latter's pass and sent back to Pritchard, who slipped two men who went too high, and dashed right round behind the posts. Stokes goaled, and the final score read:—Guy's: 2 goals, 2 tries (16 points); Oxford: Nil. Team:—

GUY'S.—H. Millett (back); A. F. Rook, A. H. Harkness, G. B. Pritchard, A. L. Stokes (three-quarters); C. H. Medlock, J. E. Davies (halves); G. R. Hind, C. S. L. Roberts, W. S. Stranack, H. Daw, O. Parry-Jones, V. Glendining, A. L. Liebson, H. Anthony (forwards).

REMARKS.—An excellent win. The whole side played well. The halves are making a great pair. Two forwards were going too high; both followed up well and played excellently, but having got to their man they repeatedly missed by half-hearted high tackling. All the back division did their utmost. The straight running and whole-hearted work of the centres, who improve with each match, was most encouraging.

GUY'S v. LONDON SCOTTISH.

An enthusiastic crowd turned up at Honor Oak Park for this match on Saturday, January 27th. The finish proving worthy of the Hospital XV.'s staying powers. Stokes could not turn out, and Kennedy being still away, Guy's were not quite at full strength. Among the London Scottish men were five Internationals: Purves, Robertson, Gilray, Simson, and Grant. The going was very heavy as the ground had only partially recovered from its previous soaking. Owing to the referee arriving late, the game was not commenced until 3.15, but the light remained quite good to the end, enabling the spectators to witness one of the best and most exciting finishes of the season.

The game was rather slow at first, neither pack getting much of a move on. But the Scotchmen had more control in the loose, though, from the scrums, Guy's got the ball fairly regularly. Play was of an even nature all through the first half, during which nothing was scored.

About ten minutes after resuming Lockhart got Gilray on the move. Simson was missed by Rook, but getting half tackled by Millett, Simson threw in again to Gilray, who scored a good try for Lockhart to majorise easily. Guy's forwards got together better now, Roberts being excellent, while Anthony was prominent in the loose work. From half-way Davies sent to Medlock, the latter to Pritchard, who cut through finely for Eccles to receive, and scored a try which Medlock tried to convert, but found the distance too great. Both full-backs gave a fine display, but Millett excelled himself by gaining a try. The ball was sent to touch and thrown out almost at once for Millett to dash up for and race over the goal line. Again Medlock's kick just failed. Both sides now strove tremendously, but Guy's were lasting the better. Glendining found touch favourably. A scrum followed, and Pritchard dashed to within a foot of the line. Another scrum and Paterson found touch by sending the ball, after daring handling, to nearly half-way. But Guy's were soon back and a good run by Medlock, ending in a quick transfer to Rook, enabled that player to gain a third try for the Hospital within about a minute of time. Final score: Guy's 3 tries (9), London Scottish 1 goal (5). Team:—

GUY'S.—H. Millett (back); A. F. Rook, A. H. Harkness, G. B. Pritchard, C. D. Eccles (three-quarters); J. E. Davies, C. H. Medlock (halves); C. S. L. Roberts, W. Stranack, A. V. Moberley, A. L. Liebson, H. Anthony, V. Glendining, H. Daw, O. Parry-Jones (forwards).

REMARKS.—Both halves and Millett played well. Davies improves rapidly. Harkness and Pritchard played extremely well. Some of the kicking was erratic, but what a ball to kick. Eccles did all that could be expected. He is a little too impetuous. But that will wear off. He is a real tryer. Rook must not constantly hang about in front of his centre. It is most awkward to play with a man always about a yard in front instead of being a fair distance away and behind. The forwards played better as the game progressed. They are a good pack. Anthony should tackle low and go for his man as if he meant it. The whole team have fairly played themselves into a real good side. They will accomplish much. The one essential point is to keep themselves as fit as possible.

Association Football.

GUY'S 2ND XI. v. CROYDON HIGH SCHOOL OLD BOYS.

SURREY JUNIOR CUP. 4TH ROUND.

This match was played at Croydon, on Saturday, January 13th, and resulted in a win for the Hospital by 5 goals to 2. The match was strenuously contested throughout and was of a good sporting character. The goals for the Hospital were scored by Wain (3) and Coxon (2). The team are now in the semi-final, and it is to be hoped that they will make a special effort to win the Surrey Junior Cup for the second time in the history of the Club. Team;—

GUY'S.—H. W. Gray (goal): C. E. Kidman, L. Gill (backs): C. C. Gibson, E. L. Jones, M. J. T. Wallis (half-backs); H. C. Rook, W. Matthews, A. C. M. Coxon, D. Wain, R. C. Staley (forwards).

GUY'S v. KING'S COLLEGE (University Cup).

On Thursday, January 25th, the Hospital beat King's College in the second round of the above Cup by 4 goals to 1. The state of the ground made good football impossible, but after the first five or ten minutes Guy's were always the better team, and except on one or two occasions had the best of the game. Coxon scored twice and Stebbings and Spong got a goal each, while King's only goal, from a wide angle, and at no great pace, found Gray asleep for once. Spong did good work at outside right, and Peregrine at left half was quite useful. Team:—

GUY'S.—Gray (goal); Keer, Neale (backs); Gill, Kyle, Peregrine (half-backs); Spong, Coxon, Veale, Stebbings, Staley (forwards).

GUY'S v. LONDON COUNTY AND WESTMINSTER BANK.

SURREY CHARITY CUP.—2ND ROUND.

After a very strenuous and fast game played at Norbury, Guy's just ran out winners on Saturday, January 27th, by 3 goals to 2. The Hospital scored first through Bevis, but the Bank soon equalised with a long dropping shot, which Evans, with the sun in his eyes, just failed to reach. Both the opposing wing men were fast and useful, but Gill and Peregrine were always ready for them and more than held them in check, whilst Keer and Neely were always a stumbling block to the Bank's forwards. Both sides had repeated shots at goal, and the opposing goal-keeper brought off many excellent saves, but on no less than eight occasions at the expense of a corner, none of which the Guy's forwards made any use. Early in the second half Veale put the Hospital one up, and after some very even play, a shot by the Bank's inside right just caught the inside of the upright and slipped into goal, thus putting the teams level.

Both the Hospital insides kept their wing men well fed, and both of the latter were always dangerous, Spong especially showing a great increase of form. Bevis had distinctly hard lines on two occasions, and a shot of Veale's which bounded down off the cross bar looked very like being over the line. Evans played a fine game in goal and the two goals scored against Guy's were no reflection on his saving powers at all. Veale scored the winning goal for Guy's about a quarter of an hour from time, and though both teams went all out from then to the finish, no further score occurred, and the Hospital won a good game and fully deserved to by 3 goals to 2. Team:—

GUY'S.—J. Rhys Evans (goal); Keer and Neely (backs); Gill, Kyle, and Peregrine (half-backs); Spong, Coxon, Veale, Stebbings, Bevis (forwards).

Papers by Guy's Men.

Kenelm H. Digby, F.R.C.S., M.B., B.S. Lond.: The Functions of the Tonsils and the Appendix.—*Lancet*, 20th January, 1912.

David Forsyth, M.D., D.Sc., F.R.C.P.: A Post-Graduate Lecture on the Diagnosis of Spinal Cord Affections.—*British Medical Journal*, 27th January, 1912.

C. Whewell Hogarth, M.R.C.S., L.R.C.P.: A Case of Poisoning by Oil of Mirbane (Nitro-Benzol).—*British Medical Journal*, 27th January, 1912.

Frederick Taylor, M.D., F.R.C.P.: A Clinical Lecture on Some Points in the Diagnosis of Pleuritic Effusion delivered at the Polyclinic.—*The Clinical Journal*, January 31st, 1912.

Hedley C. Visick, L.D.S.: An unfortunate complication in treatment of a Case of Mal-Occlusion.—*Dental Record*, January, 1912.

A. C. Jordan, M.D.: Peribronchial Phthisis (Illustrated).—*The Practitioner*, January, 1912.

Births.

HODGSON.—On 27th November, at Dulwich Hill, Sydney, the wife of C. R. Hodgson, M.D., B.S. Lond., of a son.

MOON.—On 25th January, at 45, Green Street, W., the wife of R. O. Moon, M.D., of a daughter.

PRYN.—On 13th January, at Royal Naval Hospital, Haslar, the wife of Depy.-Surg.-Gen. Pryn, R.N., of a son.

THOMPSON.—On 26th January, at 2, Greencroft Gardens, N.W., the wife of Ralph Thompson, Ch.M., F.R.C.S., of a daughter.

Marriage.

DOLL—SHABOE.—On 6th January, at Holy Trinity Church, Tulse Hill, by the Rev. A. E. Green (uncle of the bride), assisted by the Rev. H. Woffinden, Henry William Doll, youngest son of H. W. Doll, of Forst Hans, Lancing, Sussex, to Amy Kathleen (Kathleen Chabôt), only child of the late Richard Shaboe.

HINDE—TAYLOR.—On January 18th, at the Parish Church, Kirkby Lonsdale, by the Rev. H. W. Hinde, M.A., Vicar of St. John's, Ipswich (brother of the bridegroom), Ernest B. Hinde, M.B., B.C., of 7, Magdalen Road, Norwich, to Isabel, third daughter of the late Thomas Taylor and of Mrs. Taylor, of Kirkby Lonsdale, Westmoreland.

Eds.—E. G. S. and A. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 617.] FEBRUARY 17, 1912. [SIXPENCE.

CONTENTS.

	PAGE
Passim	61–64
Dental News	64
Appointments	64
A Review of "The Enzyme Treatment of Cancer and its Scientific Basis"	65–68
Change of Address	68
Acute Otitis Media. Clinical Lecture by W. M. Mollison	69–72
Abstract of Dispensary and Pharmaceutical Laboratory Report for 1911	73–74
Papers by Guy's Men	74
The Pre- and Post-operative Nursing of Intestinal Stasis	75–76
From the Gazette's Special Pathologist ...	76
The History of Dentistry	76–77
Notices	77
More Days in the I.M.S.	78–79
Guy's Hospital Dance, November, 1911 ...	79
Reviews, etc.	80
Sport	80

Passim.

THE death of Lord Lister will be mourned by the whole civilised world, while his monument will be such as the world has seldom seen; namely, hundreds of thousands of human lives saved, and incalculable suffering averted. Yet the principle underlying his great work is so simple that the word discovery can hardly be applied to it. His genius was of that rare kind which correlates work already done along entirely different lines, while he had the master-intellect which can sift the essential and the useful from the litter of accumulated facts which surrounds them. While, scientifically, his work was perhaps nothing very remarkable, yet in its applicability lay the salvation of surgery, and but for him the surgery of to-day had never existed. Even greater, perhaps, in its importance than the theory of antiseptics, was his suggestion of employing absorbable animal material as ligatures, and here, again, it is the immense practical value of the discovery rather than its scientific brilliance which deserves attention. Like all men with ideas, Lister was scoffed at by his own profession, but unlike many he was fortunate enough to see his ideas universally accepted, followed, and even superseded. Medicine has given many great men to the world, but none greater than Lord Lister,—as a former American Ambassador said when proposing his health at a dinner: "My Lord, it is not a profession, it is not a nation, it is humanity itself, which, with uncovered head, salutes you."

SURELY at no time in medical history has the profession been so freely bombarded with pamphlets, pledges and appeals as it has been since the advent of the Insurance Act. Hardly a week passes but some new document is issued to each registered practitioner calling on him to sign a pledge, to support some policy, or to attend some meeting, each and all of which are, he is asked to believe, of paramount importance for the welfare of himself and his profession. The lay Press clamours no less importunately for his attention; on the one hand urging him with valiant words to resist the Act to the uttermost and on the other, in tones more of sorrow than of anger, pointing out the benefits he may receive under the Act and the dangers he will run in ignoring them. Add to this the bulky weekly supplements of the *British Medical Journal*, filled with correspondence on the burning question of the day, and it is clear that the Act has at any rate produced a veritable flood of eloquence and has appreciably benefited the printing trade.

THE whole subject is becoming increasingly complex and the doctors are in danger of losing their bearings amidst the confusion of tongues which has arisen. Out of the chaos, however, we welcome the fly-sheet which has recently been issued by a number of medical practitioners, "attached to no particular party and committed by no pledge," appealing for "a strong but moderate policy." They criticise with most admirable clarity the two main policies before the profession, on the one hand,

that of: "No service whatsoever," as advocated by the *Practitioner* and on the other, that of: "No service unless our terms are first secured by the Commissioners!" Against the former policy they point out, what is undoubtedly the crucial point in the conflict, that the Commissioners have power to suspend the medical benefit and give the insured persons a cash equivalent. The result would be that the Friendly Societies would regain, with additional power and prestige, their tyranical control over the doctors and, by methods only too well known in the past, would ruin the prospects and unity of the profession. The arguments brought forward in the fly-sheet for the alternative policy are best read in the original, but in our opinion, they furnish the most practical and statesmanlike plan of campaign which has yet been suggested.

IN the midst of all the discussion regarding the Insurance Act it is as well never to lose sight of the fact that it is in the highest degree unlikely that medical men will beat politicians at their own game. There is an art of politics just as there is an art of medicine, and skill in the one does not imply skill in the other. The medical profession is badly organised from a political standpoint, and politicians are not slow to take advantage of this fact, so that we find Parliament casually thrusting upon doctors impositions which would never be tolerated by lawyers, with their greater political power. On the face of it, therefore, it is probable that when a political party either ostentatiously takes up "the cause" of the doctors or chidingly rebukes their pretensions, whatever may be the real object of such professed friendship and care, it is certainly not the whole-hearted devotion to the interests of the profession that they would have us believe. In the conflict of rival political parties the doctors may serve as useful weapons on either side, but when the victory comes there is great likelihood of such weapons being left behind, thrown away and broken, on the field.

THE admirable new suite of operating theatres which has been built upon the top of the surgical block is now finished and will shortly be in use, and it forms the latest of the many improvements and additions recently made to the Hospital. The suite consists of three well lighted, capacious and up-to-date theatres, two of them with galleries and all necessary accompaniments, including anæsthetizing rooms and a small pathological laboratory. The need for additional theatres was greatly felt, and the extra rooms now opened should allow even greater activity on the surgical side than exists at present. The fitting up of the new block leaves nothing to be desired, and Mr. Saltmarsh, the energetic head of the Works' Department, is heartily to be congratulated upon the result. The lighting arrangements are excellent, while the galleries ensure an excellent view for visitors without inconvenience to the operator and his assistants. Switch boards, including attachments for cystoscope and headlamps are fixed in each theatre, while the doors are provided with catches which are readily locked at the moment of closing.

BY anyone in the habit of giving anæsthetics, the provision of separate anæsthetizing rooms will be thoroughly appreciated, since the difficulties of the administrator are often more than doubled by the noise and remarks in the theatre, and the patient's natural fright at his unusual surroundings. While the cranks who would sterilize the air, or boil the patient, may have fault to find with the construction of the new theatres, yet to reasonable people they represent the most satisfactory, complete and up-to-date operative accomodation to be obtained, and the authorities are to be congratulated upon this further effort to keep Guy's Hospital in the fore-front of progression.

ON another page we publish an abstract of Mr. Finnemore's annual report on the Dispensary for 1911. It is at once noticeable that the regulations as to treatment in the Surgery have produced a marked effect on the attendance at the Dispensary, the numbers falling off by nearly 8,000 as compared with the corresponding three months of last year. There is thus good evidence that the former system of treatment of patients in the Surgery has been

substantially altered, and that this department is rapidly reverting to its original function, the treatment of casualties. Mr. Finnemore, however, regrets to report that the consequent changes in the Out-Patient Department have not been to the advantage of the Dispensary, the actual result of the new regulations for the O.P.O.'s being to produce an increased congestion of work at the Dispensary in the latter part of the day, necessitating an increase of the Staff, in spite of the total diminution of work. He suggests as a solution of the difficulty that the O.P.O.'s should see the old patients, who usually require little examination and simply the renewal of medicines, first.

There is, however, a strong objection to such a change from the point of view of the O.P.O. and the patient. By the time that the O.P.O. had seen all the old patients, who average at least a hundred, his brain would be appreciably fatigued and he would by no means be in a fit condition to deal with the new patients who require his best diagnostic skill and in the management of whom his medical powers need to be fresh and keen. Even though the old patients may not require so much mental effort in their treatment as the new, yet by their very numbers and the deadening effect of the atmosphere they bring with them, they are more than sufficient to dull the mental faculties and to render the O.P.O. comparatively incapable of properly attending to the fresh, and necessarily more difficult problems with which he is faced in dealing with the new patients. Thus, from the point of view of practical efficiency of treatment it is surely necessary to preserve the present established order.

To the statistical mind there is much of interest in the contemplation of the figures of the total output of certain drugs. During 1911 nearly ten tons of malt extract was poured out from the dispensary. Think of the consequent licking of tea- and tablespoons that that implies, consider the numberless jam-jars that were utilised to contain the precious malt! What, we wonder, would be the total calorific value of such a mountain of malt?—how many kettles of water could it have brought to the boil?—in terms of petrol how many miles could it have run a motor-car? At all events, such a quantity means a very substantial output of concentrated food-stuff from the Hospital, apart from the drugs combined with it. We forbear to speculate in like manner upon the holocaust of cod-fish necessary to furnish the 240 gallons of cod-liver oil dispensed last year, or on the myriads of bees required to manufacture our two tons of honey. Some 2½ miles of plasters were wound round the inhabitants of the Borough, and three tons of ointment were spread upon their skins. Nevertheless, in spite of the phenomenal summer of 1911, there were nearly 5,000 fewer syphons of soda-water consumed than in 1910, showing, perhaps, a thirst too deep for soda to quench. Enough, however, of such statistical orgies; it has all been summed up long ago in the poem commencing, "Little drops of water, little grains of sand," or, as the Scotch concisely state it, "Every mickle maks a muckle."

We have received an interesting pamplet from a body known as "The National Health Week Committee," containing proposals to establish a Health Week throughout the country, the object of the movement being to arouse an intelligent interest in health even among the most thoughtless and ignorant members of the community, and to secure increased support for the Local Health Authorities and Voluntary Societies. The movement is, we understand, entirely non-political in character, and is deserving of the support of everyone who has the interest of national health at heart. It is proposed to form local committees, comprising representatives of the Local Health, Education, and Poor Law Authorities, the Clergy and other influential residents, to draw up a scheme and make the necessary arrangements; and the programme suggested ranges from demonstrations in cookery to discussions on infant mortality. If it can be placed on a sound basis, such a National Health Week would be of the greatest utility, and we feel sure that the committee will be able to rely on the whole-hearted help of the medical profession.

THE Students' Club has recently received a very fine and interesting gift from Dr. P. H. Ward, consisting of the skulls of a bull and cow sable antelope, shot by Dr. Ward in the Ndola district of Northern Rhodesia. The skulls, which are admirably mounted, are, we understand, to be placed in the reading room in the College, and we would, on behalf of the members of the Students' Club, express our thanks to Dr. Ward for his generous gift.

WE would remind our readers that the Concert of the Musical Society is to be held on the 20th inst., at 8.15 in the Physiological Theatre. Tickets (price 1s. to Students and Nurses, and 2s. 6d. to members of the Staff;—evening dress, optional) can be obtained from the Secretaries, and we would urge everybody to make a special effort to be present. We understand that the present financial condition of the Society is not all that might be desired, and a great deal depends upon the success of the Concert as to its future welfare. The programme, both vocal and instrumental, is a very attractive one, and we trust that a record audience will be present to show its appreciation of Mr. Carey and the Society's excellent work.

THE Residents' Christmas play "Mactreth," will, we understand, be on sale by the end of the coming week. The attractive music by Mr. A. L. Gardner is being published with the book, and it has been illustrated with sketches of some of the characters, by Mr. Stanley Cock. Those desiring copies should send their names and addresses, together with a postal order for 2/6, to the Editor, GUY'S HOSPITAL GAZETTE, when a copy of the play will be sent as soon as published. As the number to be printed is strictly limited it is hoped that application will be made at once.

Dental News.

In connection with the appeal made by the Chairman at the Annual Dinner of the Dental Society for Donations towards Operating Chairs in the new Conservation Room, a small committee is being formed, and we hope to publish further particulars in our next issue.

Appointments.

Naval and Military.

Staff-Surgeon A. R. Thomas has been appointed to the *Excellent*.

Major G. T. Rawnsley, R.A.M.C., is promoted Lieut.-Colonel, dated 22nd January.

Captain M. C. Wetherell, R.A.M.C., has joined for duty at Kildare.

Captain H. C. Winckworth, R.A.M.C., has been selected for appointment as Specialist in Advanced Operative Surgery at the Royal Herbert Hospital, Woolwich.

G. A. Blake, M.B., B.S. Lond., M.R.C.S. Eng., L.R.C.P. Lond., was a successful candidate for commission in R.A.M.C. at the recent competition held in London in January.

Lieut. H. Stott, I.M.S., is promoted Captain, dated 1st August, 1911.

Captain H. Stott, I.M.S., has been appointed Specialist in Midwifery and Diseases of Women and Children, Burma Division.

Territorial Forces.

6th London Field Ambulance, R.A.M.C.—Lieut. E. P. Minett, M.D., is seconded under the conditions of Para. 114, Territorial Force Regulations, 1st January, 1912.

Civil.

R. Cyril H. Francis, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Lecturer to the Margate Branch of S. John's Ambulance Brigade.

J. W. Russell, M.D., B.C., F.R.C.P., has been appointed Hon. Physician to the Birmingham General Hospital.

London University.

Mr. H. L. Eason, M.D., M.S., has been appointed a Member of the Council for External Students for the remainder of the period 1911–12, in place of Mr. Leonard Hill, M.B., F.R.S., resigned.

Dr. F. Taylor, M.D., F,R.C.P., has been re-appointed Representative of the University on the General Council of Medical Education and Registration of the United Kingdom.

Royal College of Surgeons.

The Licence in Dental Surgery has been conferred on S. W. Ingram.

Conjoint Board.

Diplomas in Public Health have been conferred on:—M. M. Cowasjee, L.R.C.P., M.R.C.S.; W. R. Gibson, L.R.C.P., F.R.C.S.; F. Meadows Turner, M.D., B.C.

A REVIEW of "The Enzyme Treatment of Cancer and its Scientific Basis."

By John Beard, D.Sc. Chatto & Windus. London. Pp. i.—xviii., 1—290. Price 7s. 6d.

To those who during past years have read the embryological papers by Dr. Beard, this book will be disappointing. His earlier brilliant researches upon the "Branchial Sense Organs of Fishes," the "Transitory Nervous System of Embryos," "The Origin of Germ Cells," and his suggestive essay on "The Span of Gestation and the Cause of Birth," to mention only a few, had excited the admiration of those embryologists who were able to overlook the somewhat unfortunate style in which the author has so often thought fit to write. In this work upon the nature and treatment of cancer, Dr. Beard tells us that he has taken a "further decisive step, which must either damn his labours of the past twenty-three years or crown them with unfading glory." To the ordinary reader the style of this book would be sufficient to damn it and all it recounts, but those whose special interest in such biological problems enables them to sift the curious mixture will be anxious that the author should have a fair hearing, in spite of his amusing egotism and his inability to listen to or discuss criticism.

In brief, Beard's thesis is as follows:—He assumes that there is in the life history of all mammals an alternation of sexual and asexual generations, somewhat as there is in a fern. According to him the fertilized egg does not give rise directly to the adult, but produces a larval form, which he calls a phorozoon, which produces in its turn a number of "germ cells." One of these germ cells is then supposed to unfold or develop into the embryo, which ultimately grows into the adult, and includes all other germ cells within its body. Most of these included germ cells wandering in from the phorozoon find their way to that part of the peritoneum which becomes known as ovary, or testis, and these eventually give rise to ova or spermatozoa, though why they do not all unfold as embryos is very mysterious. Some, however, go astray and lodge in various parts of the body, and these vagrant germ cells may or may not give rise in future years to tumours of various kinds, accordingly as they attempt to develop into "embryos" or do not do so. Perhaps two germ cells on the phorozoon instead of one unfolds, and the result is *twins*; or one of these may fail to progress far in its course of development and becomes included with the other germ cells, and the result is an "embryoma." Or, an aberrant germ cell, later in life, may start development and never get beyond a phorozoon stage, and a cancer ensues. The phorozoon stage in a mammal is the trophoblast; therefore cancer is "irresponsible trophoblast," and is the asexual generation living within and at the expense of the sexual generation.

If trophoblast and cancer are alike why do not all mothers die of cancer whenever they become pregnant? Beard answers this by saying that at a certain stage the trophoblast degenerates, and that this degeneration is coincident with the origin of glandular activity of the pancreas in the embryo. Wherefore it is the pancreatic ferments which induce the degeneration of the trophoblast, hence a cure for cancer is to be found in the pancreatic ferments. A most deadly form of cancer named chorion-epithelioma, often results if the embryo dies, or when a piece of trophoblast is left in the uterus after a miscarriage and is therefore lacking the embryonic pancreatic ferments. He further assumes that there is a chemical basis for this hypothesis. He assumes that the albumins and carbohydrates of the one, the asexual generation, are enantiomorphic to those of the other, the sexual generation. He assumes that as the albumins of the body are lævo-albumins, they can only be broken down by dextro-enzymes, so that the albumins of cancer must be dextro-albumins producing dextro-enzymes.

As the trophoblast is (according to Beard) destroyed by the pancreatic ferments of the embryo—the embryonic albumins being lævo-albumins—so a pancreatic ferment should destroy the cancer because that is really an individual of the asexual generation living and growing parasitically within the tissues of the brother "once removed" so to speak. Hence the scientific basis of Beard's treatment of cancer by the ferments trypsin and amylopsin.

This sounds a plausible enough tale, and if well founded on fact would be a thoroughly scientific indication of the origin and possible treatment of cancer.

But how about the facts? We read time after time of the author's "scientific opinion," but look in vain for the solid facts on which he has builded his theory.

In the first place what evidence is there of an alternation of generations in mammals such as Beard assumes? If there is, how can such an alternation be compared with that of plants?

There can hardly be mentioned a biological phenomenon more fundamental than that known as the meiotic phase of the life cycle, which may be said to be the culmination of a sporophytic generation in both animals and plants, and which marks off distinctly that part of the life cycle when the individual may be regarded as the combination of two ancestral tendencies, and the commencement of the part of the life cycle when there is a separation until another temporary co-partnership is effected. If we are to compare the life cycle of a mammal with that of a fern, we surely must take this meiotic phase as the starting point of our comparison and compare the pre-meiotic of the life cycle of the one with that of the other, and the post-meiotic with the post-meiotic as Farmer and Moore did in 1905. But to suit Dr. Beard's theory the embryo and adult of a mammal which are pre-meiotic, are made to correspond with the gametophyte phase of plants which is post-meiotic. This fatal objection to Beard's comparison had been previously pointed out to him, and if he claims for his work a scientific value he ought to attempt to meet the objections, not simply to ignore them. But for the sake of argument we will assume for the moment that his table of comparison on page 127 is valid. By this he shows that his phorozoon, *i.e.*, the trophoblast or "cancer" arises directly from the zygote formed by fusion of ovum and spermatozoon. The phorozoon gives rise to the primitive germ cells, all except one of which wander into the somatic tissues of that remaining one after it has unfolded into the embryo. Here in the later stages of life one of these aberrant germ cells, it is suggested, may give rise to "irresponsible trophoblast" or cancer. But how can this be, for it was the trophoblast which, on Beard's own showing, gave rise to the germ cell? If the cycle is to be followed according to Beard, a germ cell can give rise only to embryo (for the phorozoon or trophoblast results from the zygote) to tissues of the same nature from the stereo-chemical point of view as the tissues of its host—and either the whole argument of enantio-morphism of the compounds of the cancer and tissues attacked, or else Beard's view of antithetic alternation of generations falls to the ground.

Again, there is no reasonable argument in favour of an alternation of generations in the higher animals, except, of course, on the basis of the pre-meiotic and post-meiotic phases, though the post-meiotic or gametophyte generation is reduced to a single cell division, the so-called homotype division (in animals). How an embryologist can say that the blastoderm of a skate does not develop directly into the adult seems to us incomprehensible. There may be some *prima facie* reason for the suggestion that the trophoblast of a mammal is a larval envelope like the pilidium of the nemertean, but to argue that the pilidium gives rise to the nemertean or the trophoblast gives rise to the mammal like a fern gives rise to a prothallus is both morphologically and physiologically impossible without ignoring the facts of cytology.

If the blastoderm of a skate, or the trophoblast of a man is the asexual generation, giving rise to the chemically fundamentally different sexual generation as Beard asserts, where are the corresponding parts in the developing Amphibian or a yolkless egg such as that of an Acraniate? The blastoderm of the skate (by which Beard, we think, really means the yolk sac) and the trophoblast of a mammal are surely adaptations, special and peculiar developments of larval tissues in correlation with the mode of nourishment due to the peculiar conditions under which these animals pass their early embryonic life. To say that the trophoblast produces the man is just as little reasonable as to say that the kitchen garden is the origin of the palace. What proof does Beard give that the secretion of the pancreas has anything to do with the control of the trophoblast in normal development? Practically none. He asserts that the trophoblast may give rise to chorion-epithelioma in the absence of the whole embryo. He says that the trophoblast begins to degenerate about the time the embryo begins to produce trypsin. His line of argument is like this:—"At this epoch in the fish the pancreas gland manifests its activities by the presence of abundant zymogen granules in the cytoplasm of its cells" . . . . "As the pancreas gland begins its functions in a fish or an average marsupial, so it must do in the development of a man" . . . "Undoubtedly, under the action of the pancreatic ferments, the asexual structures of a fish development begin to degenerate and, as represented by the trophoblast they do the like in a mammal or a man." (P. 135).

There is no real proof that this degeneration has anything to do with the pancreas. Nor is it even true that the trophoblast degenerates at this period. In the Ungulates the trophoblast is as vigorous at the end of gestation as at the beginning, and it is so in many others, *e.g.*, Acomys among Rodents, Erinaceus among Insectivora, in Hyrax or in the Carnivora. Even in Man although it has a very different appearance at birth to what it has at two weeks, and has undergone a proportionately great reduction

in bulk as compared with the mass of the embryo, and is no longer so actively erosive in its action, it is still playing a part in the nutrition of the fœtus. Nor can we quite agree with the author that the cessation of erosion is due to the counteracting effect of fœtal pancreatic enzymes, for in Ovis we find at the same moment an erosive trophoblast area over one part of the surface, the cotyledons, and a non-erosive trophoblast over the inter-cotyledonary areas. Here it would seem to be determined by the character of the uterine tissues. In the former areas there is a lack of nutritive matter secreted by uterine epithelium and so they suffer from the action of the trophoblast; in the latter, the trophoblast finds plenty of nourishment in the secretion of the uterine glands and superficial epithelium, and the tissues themselves escape.

We come now to the question of stereochemical differences supposed by Beard to exist between the compounds of the sexual and asexual generations, so that pancreatic ferments do not act upon the living tissues of the body, but do destroy the tissues of the other generation. Thus, trypsin and amylopsin injected into a patient suffering from cancer should not harm the healthy tissues, but should destroy the cancerous area. If this were true it would, as Beard says, be a fact of far-reaching importance. But is it true? We are amazed that a writer who abuses others for unscientific speculation should be content with the following:—

On p. 156 he acknowledges that the chemical composition of the sexual generation of any plant, a fern prothallus, for example, has never yet been determined in the laboratory. On p. 238 he writes that the crucial test "has not yet been applied to this doctrine of the nature of cancer, even by the writer, who, with Pasteur, believes that 'science is prevision.' He has never yet seen with his own eyes that which he now challenges the whole array of researchers and writers . . . to refute," being quite content to prophesy, on p. 240: "The crucial test of the true nature of the albumins of cancer may be made by submitting a solution of them to an examination in the polarimeter, when this solution will be found to rotate the plane of polarized light to the right!"

We do not feel so hopeful that, even if this were to prove true, we should thereby have a confirmation of Beard's remarkable "scientific basis" of cancer. It is a well-known fact that the lateral branches of a root of a plant, in their endogenous growth starting deep down in the pericycle, work their way to the surface by digesting the cells of the cortex. They behave, in fact, to some extent, like a trophoblast or cancer. Are we to suppose that the enzymes they produce are enantiomorphic to the compounds of the cortical cells, and does that therefore premise the conclusion that there is here an antithetic alternation of generations each time a lateral rootlet is formed? Or may we suppose that the root branch is of the same generation as the main root, but is, nevertheless, able to produce enzymes suitable to its purpose? Or, again, in cases of autolysis in animal tissues, are not enzymes produced which can break down the compounds of the same generation?

The book shows signs of haste in its preparation. Repetition is frequent. It is difficult to reconcile the sentence beginning line 4 on page 244 with the truly wonderful pronouncement contained in the sentence beginning in the last line of page 238. Nevertheless, although the scientific basis may be utterly false, although we may disapprove altogether of the tone of the writing, yet, are the results clinically of value? Is the injection of trypsin and amylopsin a cure or a palliative of any form of cancer? Dr. Beard gives, at any rate, one very remarkable history of apparent cure of sarcoma of the jaw by prolonged treatment with powerful injections of trypsin of 1000 units of tryptic strength together with amylopsin injections of 2000 units. He ascribes the many failures to the use of inert or too weak injections. He emphasises the necessity of amylopsin, the use of which in the earlier years was not recognised by him or others, and which omission led to much pain and disaster.

It seems to us, that, quite apart from the scientific basis, if this one very striking success was the result of the treatment accorded, and there is no *prima facie* reason for doubting it, another powerful weapon has been placed in the hands of the physician. If we feel doubtful of its efficacy it is on account of the long list of failures, but it is more than possible as Dr. Beard points out, that many of such failures are to be explained by insufficiency of the strength of the injections used.

We are quite ready to subscribe to the view that the trophoblast is an exceedingly interesting tissue, and that in some respects its action upon the uterine tissues resembles the action of a cancer, and, indeed, the fact of chorion-epithelioma suggests an analogy between trophoblast and cancer. We also think that a more thorough study of the cytology and physiology of the trophoblast would even add some facts which might help us towards the control of malignant

disease, but we are sorry to have to say that as regards the etiology of the disease, Dr. Beard's book has disappointed us, for we are forced to the conclusion that his views on the cause and origin of cancer are almost wholly unsupported by scientific evidence.

We are fully prepared to believe that the problem of cancer is more truly a biological problem, in the consideration of which the general life cycle of the metazoon must be taken seriously into account, than in the case of many other diseases. We are even prepared to concede that Dr. Beard may be working in the right direction, although his reasoning as expounded in this book seems to us to be hopelessly at fault. We cannot follow him in his particular line of argument, but there are certain facts such as the simplicity of structure of cancerous tissue, its independence, the occurrence of the meiotic phase in cells at the growing edge, which suggest that we may have in cancer a state which can be described as being due to a local dissociation of the partnership entered into by the gametes at the time of fertilisation, leading to a condition which becomes practically an endemic parasitism in which the parasite has relations to its host very much those Beard presumes (except that it is gametophytic rather than sporophytic). Quite recently the late Sir Henry Butlin maintained that cancer is a parasite of a peculiar nature. It is quite conceivable that this nature may be that suggested above. We know that the somatic cells are the direct descendants of the zygote and contain the tendencies of the two ancestral lines brought together by the act of fertilisation. We know that the same can be said of the germ cells up to the time of maturation. Then comes the remarkable phenomenon of meiosis. A consideration of the results of experiments carried on upon Mendelian lines leads one to suspect that meiosis may be regarded as the dissolution of the partnership entered into at fertilisation. We do not in the least understand what determines this dissolution which results ultimately in gametes. So long as we are unable to say what causes it to occur normally in the germ cell, we are at liberty to say that there is no known reason why it should not occasionally occur abnormally in the somatic cells. If it did—and it might occur to any cell or group of cells—we might have at once a dangerous parasitical centre, or as Butlin would have said, a new creation.

The fact that the disease has been stayed in not a few cases by the injection of such substances as Coley's Fluid or Beard's trypsin and amylopsin makes one hopeful of an eventually successful empirical research into the cure. At the same time the fact points to the possibility that the tendency to relapse into a single state (if such the cancer is, as suggested above) may be due to a weakening of general vitality which is made good by a violent stimulus or change of nutrition.

The injection of some material—*e.g.*, Coley's or Beard's—may afford a stimulus just as a change of diet or even mechanical agitation will renew at any rate temporarily the vitality of an effete race of protozoa as shown by Calkins. The dissolution of partnership brought about by general weakening of vitality which one would expect to occur more frequently in old age than in youth might be either of the nature of divorce or of the death of one partner.

It would not be surprising from a biological point of view that there should be a tendency for somatic cells to dissolve partnership. Somatic cells differ essentially from germ plasm cells in the power acquired of intense differentiation. This differentiation, however, is at the expense of the cyclical habit. If protoplasm is to persist in a more or less constant environment it must (since it is always undergoing change) retain the power of repetition. If it does not, death sooner or later ensues, as is the fate normally of all somatic cells which sooner or later get out of correspondence with their environment. Thus, perhaps, we see in malignant disease the fatefully successful attempt on the part of certain somatic cells to regain the cyclical habit, and thus to escape death.

So far as the cells and their descendants themselves are concerned, it is an intrinsically successful effort; but by attainment of independence the newly "created" organism of necessity substitutes parasitism for co-operation, and this leads to the annihilation of its environment, its host, and correspondingly to its own eventual destruction.

RICHARD ASSHETON.

Change of Address.

Thomas Bryant, M.Ch., F.R.C.S., from 19 to 21, Fitz-George Avenue, Kensington, W.

A. B. Hudson, L.R.C.P. Lond., M.R.C.S. Eng., from Vine House, Cobham, to 32, Linden Road, Bexhill-on-Sea.

Julian Messer, L.D.S., from 35, Devonshire Street to 23, Wimpole Street, W. (*Telephone* Mayfair 1237).

E. O. Yerbury, L.D.S., from Holly Lodge, Dorchester, to Monmouth House, 37, Broad Street, Lyme Regis.

E. L. Martyn Lobb, M.S. Lond., F.R.C.S., to c/o Dr. Oswald Marriott, Hong Kong, China.

Acute Otitis Media.

CLINICAL LECTURE BY W. M. MOLLISON.

Gentlemen,—I have chosen the subject of Acute Otitis Media for my lecture to-day because it is one of great importance and of considerable frequency: it is a disease in which proper treatment, especially in the initial stages, may be the means of staving off complications involving loss of hearing, or even danger to life.

The *middle ear* consists not only of the tympanum, but also of the Eustachian tube opening from it in front and the antrum opening behind, as we see from these specimens.

The *tympanic cavity* is a very small space almost filled with the auditory ossicles; it consists of the tympanum, the epitympanum, or *attic*, and the hypotympanum—a small space in the floor. The Eustachian tube opens not from the lowest part of the anterior wall, but from a position raised from the floor. The antrum opens from the upper part of the posterior wall. The upper portion—the attic—contains the bulky parts of the malleus and incus, and is to a considerable extent separated from the main part of the tympanum.

On the inner wall of the tympanum is the promontory, the bony projection caused by the basal turn of the cochlea; above this is the canal for the facial nerve and the fenestra ovalis, into which fits the foot-piece of the stapes; below the fenestra ovalis, and hidden in a recess, is the round window. The outer wall is formed by the tympanic membrane. On the inner aspect of the membrane is fixed the handle of the malleus. The whole is lined by mucous membrane. The movements of the air produced by sound impinge on the membrane and move the malleus, which in its turn moves the incus, which again articulates with the stapes and moves the foot-piece of the latter in and out of the oval window. These movements produce movements in the endolymph, which affect the hair cells of the cochlea, and so give the impressions of sound.

The *Eustachian tube* runs from the anterior wall of the tympanum downwards, forwards and inwards, to end on the lateral wall of the nasopharynx; it is one-third bony—the tympanic end—and two-thirds cartilaginous; it is lined by ciliated epithelium, which becomes continuous with that on the mucous membrane of the tympanum.

The *antrum*—a small cavity in the depth of the mastoid process—opens from the upper part of the posterior wall of the tympanum by an opening called the aditus; this opening is more or less triangular, and in the lowest angle of it articulates the short process of the incus. The cavity is lined by mucous membrane continuous with that of the tympanum. Thus we see that the mucous membrane of the whole middle ear is one, and directly continuous with that of the nasopharynx.

Acute inflammation in such a small space containing a delicate mechanism as we have seen must inevitably produce marked symptoms.

How does infection arise? There can be but one answer—via the Eustachian tube from the nasopharynx. It is true that infection occasionally occurs from outside, but only in a negligible percentage of the cases. As an example the following case may be quoted:—

Recently in the Out-Patient Department a child was seen into whose ear a pin had been pushed; three days after there was great pain in the ear, the membrane was bulging and incision revealed pus, and from the pus staphylococcus albus was cultivated, a finding which is, perhaps, in favour of the case being infection from without.

Other cases in which infection occurs from without are those of ruptured tympanic membrane, from blows on the ear or in connection with fractured base of the skull.

In all other cases infection arises in the nasopharynx, the mouth or nose, and sources of infection will be found in adenoids, pharyngitis, tonsillitis, septic teeth, catarrhal rhinitis, atrophic rhinitis; the infectious fevers are responsible for large numbers of cases, especially scarlet fever, measles, and diphtheria; of all cases of scarlet fever 12 per cent. develop otitis. No doubt these diseases, too, lead to otitis on account of infection from the nasopharynx.

When suppuration takes place the organisms found in the pus are very various; the following are most frequent: streptococci, pneumococci, staphylococci, B. influenzæ, Klebs-Lœffler bacilli.

Recently I saw a child develop double acute otitis during the recovery from lobar pneumonia, where the pneumococcus was cultivated, and a few years since the pseudodiphtheria bacillus of Hoffmann was found in the pus from a unilateral case I saw in the Out-Patient Department at this Hospital.

The severity of the disease varies greatly and it is only in a proportion of cases of acute otitis media that suppuration occurs: the severity depends on various factors; the condition of the patient, the infecting organism and the treatment; weakly patients will naturally have a lowered resistance and fall easy victims; some organisms, notably those of the infectious fevers mentioned above and of pneumonia, are more apt to cause complications than others; and lastly, neglect of the early stages of the disease is obviously adverse to its course. So often is earache thought lightly of and, perhaps, more especially in children is it ignored altogether or treated at home, and only when suppuration has taken place or, indeed, the pus burst through the tympanic membrane is the practitioner called in.

May I remind you of the pathology of inflammation, a subject which stands at the beginning of almost every treatise on surgery and one which is, I venture to think, apt to be lost sight of when disease of specific portions of the human frame is being dealt with.

Inflammation—the result of infection by micro-organisms—manifests itself in the first place as an *hyperæmia*, this passes to a *congestion* and may lead to *stasis* or even *thrombosis* of the vessels in the neighbourhood if the balance of infection versus resistance is sufficiently thrown in the direction of infection; accompanying the hyperæmic and congestive stages is an *exuadion* of leucocytes and serum, and eventually should the infection persist and the tissues react to that infection this serous exudate becomes pus. Thus, pathologically, it is impossible to decide when a serous exudate becomes pus.

These simple pathological conditions must now be applied to the process of inflammation as it affects the middle ear and for the sake of simplicity we will divide the middle ear into—

1. Eustachian tube
2. Tympanum
3. Antrum and mastoid process

and consider the effect of these changes of these parts separately.

1. *Eustachian Tube.*—This is naturally the first part of the middle ear tract to feel the effects of infection; its lumen is normally small and the walls in contact, but each time the act of deglutition is performed it becomes patent, and allows the passage of air to the tympanum, thus equalising the pressure within and without. There is a very simple test which proves that the tube opens on deglutition; it bears Politzer's name. A tuning fork is sounded and held close in front of the nose, it is heard to a certain extent; now, on swallowing, the note is heard much louder for a moment.

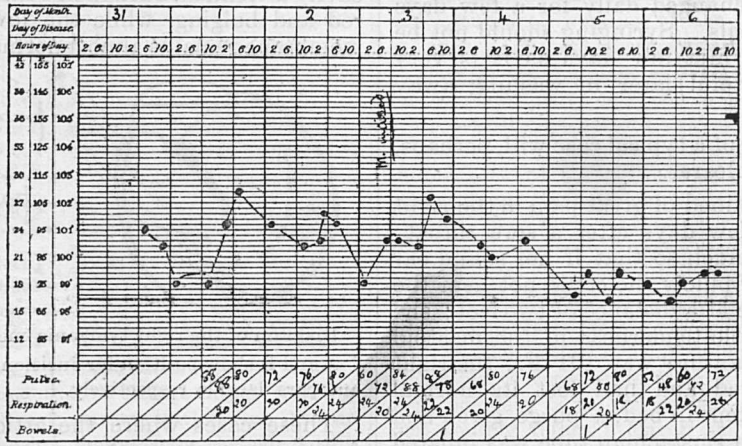
When inflammation occurs the walls of the tube become hyperæmic and some exudation occurs into them; the result of this is *obstruction* to the passage of air, the pressure is no more equalised on deglutition, and the air remaining in the tympanum is gradually absorbed. This results in an indrawing of the membrane and an alteration in the position of the ossicles. Symptomatically this is represented by *pain*, referred to below the ear towards the angle of the jaw, or to the ear itself; *deafness*, because of the altered tension in the tympanum, this deafness is of the obstructive type; *tinnitus*, no doubt due to the altered position of the foot-piece of the stapes in the oval window and a consequent alteration of pressure in the internal ear; this symptom is variable, and dependent on the amount of retraction of the membrane. The signs of the disease are the indrawn membrane, the "conducting" type of deafness, and the result obtained on using Politzer's test; should one tube be obstructed the fork will not be heard in that ear as it is in the other on swallowing. Lastly, the appearance of the nasopharynx may suggest the source of infection, the mucous membrane may be red and inflamed, and some muco-pus seen around the opening of the Eustachian tube.

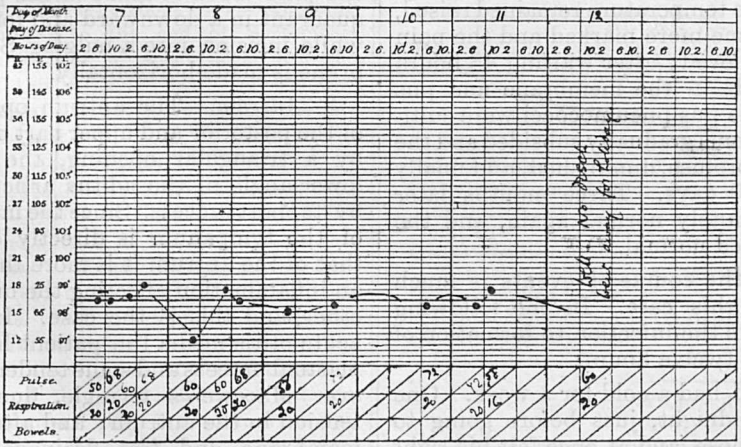
The treatment consists in opening the tube, and disinfecting, if possible, the pharynx and naso-pharynx. The former is done by the use of the Eustachian catheter, and may have to be repeated three or four times to effect a cure; the second by the giving of some pharyngeal disinfectant; the best is, I think, a lozenge containing formalin in some form. After the attack is over, prophylactic measures against further attacks should be adopted—adenoids, nasal obstruction, pitted tonsils and septic teeth should be appropriately treated.

2. *The Tympanum.*—Since the Tympanum is in direct communication with the Eustachian tube, inflammation spreads along the tube and attacks the mucous membrane of the tympanum, the same series of changes are set up, the mucous membrane becomes hyperæmic and congested, exudation takes place into it and, indeed, into the cavity itself; this condition of serous exudation easily passes to one of suppuration if the virulence of the invading organism is high enough.

The symptoms typical of this stage are *pain*, *deafness*, and *tinnitus*; the pain is severe, lan-

cinating and throbbing, not only in the ear, but around it; the deafness is of the conducting type, and the tinnitus is variable. The signs of the disease are seen on examination of the tympanic membrane; in the early stages it is seen to be dulled and opaque-looking; later, dilated vessels are to be seen on its surface radiating from the handle of the malleus, which looks red, to the periphery; later still, these vessels disappear





merged in a universal redness of the whole membrane. The membrane is also bulged slightly outwards. The time taken for these changes to come about varies much and should treatment be initiated early the process may be checked. The treatment of the condition consists in trying to maintain drainage, and in relieving pain; to these ends the Eustachian tube is inflated by passage of the Eustachian catheter repeated twice a day, and at the same time drops of glycerine and carbolic acid as hot as is comfortable are instilled into the ear, and hot fomentations applied; the patient should be put to bed, a purge administered, and some analgesic such as aspirin given. Under such treatment the process may subside, the pain diminish, and the membrane become less inflamed till recovery has occurred.

Should the infection be more severe and treatment fail, the serous exudation passes on to pus formation, and it is obvious that no sharp line pathologically or clinically can be drawn between the two; the formation of pus may be shown on inspection of the membrane, the bulging becomes marked often at one part, and the previous universal redness gives way to local yellowish spots best seen where the

bulging is greatest. The pain instead of subsiding under the treatment becomes worse. The time taken for pus to form varies very greatly, usually two or three days, but I have seen it already present less than twelve hours after the onset of symptoms.

The treatment now is simple, the abscess—for such it is—must be opened and drained; an incision is made in the membrane in its posterior inferior quadrant, and strips of gauze are laid in the meatus and changed daily for a few days till the abscess heals. Syringing should not be employed for the first few days as it is very painful, but is useful later in washing away debris and blood.

The description of a typical case will, perhaps, make the matter clearer.

A Nurse complained of great pain in the right ear following a few days after a sore throat; she was deaf, so much so that if her sound ear was buried in her pillow she could not hear the conversation voice at a distance of two feet; she had pain and a little tenderness in the mastoid region, her temperature was 101° F.; the right membrane was red and had lost its normal gloss. She was kept in bed, a purge given and Aspirin gr. x; the Eustachian tube was inflated with some relief from pain, drops of glycerine and carbolic instilled into the ear and fomentations applied. The temperature remained raised, the deafness became more marked and the pain was not much relieved; after waiting 48 hours incision was made in the membrane and pus escaped—from this pus pneumococci were cultivated—the symptoms gradually subsided and the discharge at first profuse, diminished, and finally ceased in 9 or 10 days. Three months later hearing was absolutely normal again, and the membrane appeared normal.

In some cases the course of events is much quicker than in this case. In the following case, the time from the infection to formation of pus was less than twelve hours :—

A doctor B. had had a cold for a week. One evening about midnight, just before going to bed, he blew his nose, and at once felt his right Eustachian tube blocked, and could not clear it by Valsalva's method. During the night he got pain in the ear, and by the following day, at noon, the membrane was bulging and red, and incision set free a considerable amount of thin pus.

In some cases the upper part of the tympanic cavity—the attic—is affected without the lower part; this gives rise to similar symptoms as those previously described, but to different signs. The attic contains the head of the malleus and the body of the incus, and is shut off to some extent from the lower part of the tympanum by folds of mucous membrane, and it is shut in below and externally by that part of the tympanic membrane which lies above the short process of the malleus, the so-called pars flaccida, or Shrapnell's membrane. When the attic mucous membrane is inflamed and the cavity distended, Shrapnell's membrane becomes red and bulging, while the lower part of the membrane remains almost normal in appearance.

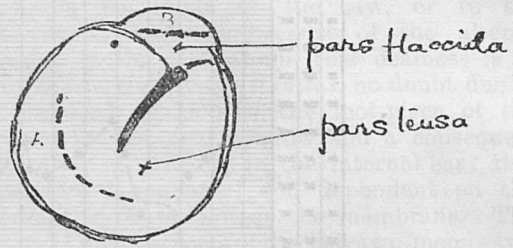


Diagram of the right tympanic membrane.

A and B show position for incision in the pars tensa and pars flaccida respectively.

These cases where the attic is affected call for the same treatment as the others except as regards the position of incision. Incision into the pars tensa is made in the posterior inferior quadrant in a downward and forward direction, while incision into a bulging Shrapnell's membrane is made horizontally.

3. *Antrum.*—The antrum opens directly out of the posterior and upper part of the tympanum by a triangular opening, the aditus; in the lower angle of the aditus articulates the incus by its short process. Since the mucous membrane of the tympanum is directly continuous with that of the antrum it is more than probable that an inflammation affecting the one will affect the other, and this is the case. In many cases of acute otitis media the patient has pain over the mastoid process and some tenderness on pressure over Macewen's triangle, due, no doubt, to tension in the antrum; and after incision of the membrane and free drainage the pain and tenderness disappear. When this tenderness and pain do not disappear the possibility of the disease having extended beyond a simple congestion of the mucous membrane and the possibility of the development of some complication must be borne in mind.

The treatment of inflammation in the antrum is simply that of the acute tympanic inflammation discussed above.

Abstract of Dispensary and Pharmaceutical Laboratory Report for 1911.

The total number of Out-Patients' attendances at the Dispensary during 1911 was 220,591 compared with 221,847 in 1910, 203,455 in 1909, and 198,332 in 1908. There are two classes of patients—those who pay 3d. per week for medical and surgical supplies, and those who, pleading poverty, receive these supplies free. The details for the last two years are given below:—

DISPENSARY ATTENDANCES.

1910	Medical.	Surgical.	Casual.	Total.
Paying ...	65,001	30,953	68,434	164,388
Free ...	8,318	6,170	42,971	57,459
Total ...	73,319	37,123	111,405	221,847
1911				
Paying ...	65,410	31,411	64,542	161,363
Free ...	10,363	6,598	42,267	59,228
Total ...	75,773	38,009	106,809	220,591

These figures do not reflect the actual state of affairs. It will be remembered that a change in the working of the Out-Patient Department was initiated on October 1st, 1911. The following figures show the effect this has had on the Dispensary attendance. Although the total numbers for 1911 are slightly smaller than those for 1910, this result is brought about by two opposing factors. From January to the end of September, 1911, there was an increase of about 6,000 over the previous year, but this increase has been counterbalanced by a decrease of about 8,000 during the last three months of the year.

	1910	1911	
Jan. 1st to Sept. 30th,	165.023 ...	171,525.	Increase, 6,502
Oct. 1st to Dec. 31st,	56,824 ...	49,066.	Decrease, 7,758

With regard to the change in the Out-Patient Department, it has been previously shown in the Dispensary Report for 1908 that from the point of view of the Dispensary, the chief defect of the system was that too many patients arrived at the Dispensary very late in the day, and that it was not uncommon for as many as a third of the total number of patients to arrive at the Dispensary after 5 o'clock, when the greater number of the dispensers had gone home. The strain on the man on late duty was excessive, because he had also to be available for the supply of urgent medicines for the wards. It was hoped that when a change took place in the working of the Out-Patient Department, a successful attempt would be made to obviate this state of affairs, which is not without a somewhat serious element of danger.

It is with regret, therefore, that I have to report that the alterations have not been to the advantage of the Dispensary. Although there has been a smaller number of Out-Patients, these are distributed throughout the day in a less advantageous manner than previously, and instead of one dispenser, it has been found necessary to keep two men on late duty to cope with the work, notwithstanding the fact that there is less work to do during the whole day.

As far as the working of the Out-Patient Department is concerned, it may be stated that the only factor which seriously affects the Dispensary, and which need be considered in this report, is the working of the Out-Patient officers, on whom the smooth and economical working of the Dispensary depends so much, and that, whereas formerly there were two on duty in the morning, at the present time there is, for the most part, only one. In consequence, there are practically no patients available at the Dispensary in the morning, and the work of the day has been shifted forward about two hours. This is especially noticeable on Mondays and Wednesdays, which are exceedingly busy days.

It has always seemed that a way out of the difficulty would be for the Out-Patient Officers to see the old patients first. These usually require no examination, but in many cases merely to obtain medicine. Looked at from the patient's point of view, it would seem preferable to consider that he is only a new patient once, but may be an old patient many times, and, if kept waiting rather a longer time on the first visit, the shorter time he would have to wait during the remainder of his visits would more than compensate him.

RECEIPTS.

The following table gives the amount of money received at the Dispensary in the last two years:—

	1911 £ s. d.	1910 £ s. d.
Out-Patients... ...	2,042 7 9	2,056 15 6
Sale of Drugs ...	143 10 0	111 2 11
Net Profit on Sale of Bottles to Out-Patients	92 2 2	92 0 4
Goods supplied to the Medical School ...	88 16 4	92 8 6
Goods supplied to the Dental School ...	70 18 6	53 4 2
Goods supplied to the Institution ...	19 5 3	23 14 0
	£2,457 0 0	£2,429 5 5

In addition to the above, chemicals have been supplied to the various departments to the value stated below:—

	1911 £ s. d.	1910 £ s. d.
Skiagraphic Department (Surgical)	10 11 2	7 16 3
Skiagraphic Department (Medical)	32 8 7	8 18 8
Works Department ...	10 19 6	5 6 3
Laundry	0 16 9	1 13 3
	£54 16 0	£23 14 5

Most of the expense incurred by the Medical Skiagraphic Department has been for bismuth salts.

The total cost of drugs and dressings during 1910 and 1911 is given below from figures supplied by Mr. Williams, Clerk to the Governors:—

	1911	1910
	£	£
Drugs	3,286	2,884
Dressings	3,192	2,693
	£6,478	£5,577

SPECIAL ITEMS.

The following figures are given to show the large amount spent on a few items:—

	Quantity Used.	
	1911	1910
Bismuth Salts	336 lbs.	300 lbs.
Camphor	268 lbs.	270 lbs.
Cod Liver Oil	240 gals.	300 gals.
Glycerin	35 cwt.	32 cwt.
Honey	41 cwt.	41 cwt.
Malt Extract	190 cwt.	180 cwt.
Potassium Iodide... ...	364 lbs.	336 lbs.
Olive Oil	270 gals.	190 gals.
Rectified Spirit	200 gals.	150 gals.
Methylated Spirit... ...	1,600 gals.	1,440 gals.
Sugar	89 cwt.	81 cwt.

	Cost.					
	1911			1910		
	£	s.	d.	£	s.	d.
Bismuth Salts	137	11	0	108	1	1
Camphor	21	15	6	22	7	8
Cod Liver Oil	63	17	4	60	0	0
Glycerin	171	12	6	146	12	0
Honey	54	7	7	54	17	3
Malt Extract	203	17	6	204	15	0
Potassium Iodide ...	135	2	4	124	9	8
Olive Oil	77	3	1	42	18	7
Rectified Spirit	260	4	2	193	15	0
Methylated Spirit ..	153	6	8	140	0	0
Sugar	72	3	0	76	13	0

During the last few years, co-operative buying in various articles has been adopted in the London hospitals. This has now been extended to drugs, and certain groups of hospitals have united their requirements and joined to buy together.

This should undoubtedly prove of benefit to the smaller hospitals, but it is hardly likely to be of much advantage to the larger ones, whose requirements are now so large that in most cases no better terms could be given. As an illustration, we now buy about 10 tons of malt extract per annum, at what must be very near the actual cost price, and it seems very doubtful if it would be possible to obtain it much cheaper if, say, 15 tons were bought in one contract. A report upon Co-Operative Purchase has already been published by the King's Fund.

New items of expenditure have been:—Salvarsan, on which £62 has been expended, and Liquid Paraffin, of which 16 cwt. has been used at a cost of £30. Ninety-four gallons of olive oil for internal administration have been used at a cost of £32. Pituitary gland products have cost £44 against £2 12s. in 1909.

During the year the Medical Committee approved certain alterations in the formulæ of preparations in use in the hospital. These alterations have been made pending the revision of Guy's Hospital Pharmacopœia. They will have the effect of economising in the use of alcohol to the extent of some £200 per annum.

Drugs have been, in the main, somewhat dear during 1911. Opium and its products have been, and are still, exceedingly dear, but in accordance with recent pharmacological teaching, the employment of opium, in the form of lead and opium lotion, of which a large quantity was formerly used, has almost stopped.

HORACE FINNEMORE,
Pharmacist to the Hospital.

January 29th, 1912.

Papers by Guy's Men.

A. F. Hertz, M.A., M.D., F.R.C.P.: An Address on Investigations of the Motor Functions of the Alimentary Canal by means of the X-rays: delivered before the Brighton Division of the B.M.A. on November 22nd, 1911.—*British Medical Journal*, February 3rd, 1912.

P. P. Laidlaw and another; A Simple Coagulometer.—*Journal of Pathology and Bacteriology*, January, 1912.

E. P. Minett, M.D., D.P.H., D.T.M.&H.: The Question of Flies as Leprosy Carriers.—*Journal of London School of Tropical Medicine*, Vol. I., Part I., page 31, December, 1911.

C. J. Morton, M.D.: A Skiagram of a Case of Tarsalgia.—*Proceedings of R.S.M.*,: Vol. v., No. 3, January, 1912.

R. P. Rowlands, M.S., F.R.C.S.: (1) Anterior Gastro-jejunostomy; Perforated Jejunal Ulcer; Detachment of Jejunum; Excision of Ulcer; Gastro-duodenostomy. (2) Gastric Carcinoma; Partial Gastrectomy, Two years ago.—*Ibid.*

Sir George H. Savage, M.D. Lond., F.R.C.P. Lond.: Notes of a Lecture on Medico-Legal Relationships of General Paralysis of the Insane. (Delivered at the Medical Graduates' College and Polyclinic, Chenies Street, London, W.C., on January 25th, 1912). *Lancet*, February 3rd, 1912.

A. Shillitoe, M.B., B.C., F.R.C.S. (1) Case of Syphilis; (2) General Small Lichenoid Syphilide.—*Proceedings R.S.M.*, Vol. v., No. 3. January, 1912.

A. H. Tubby, M.S., F.R.C.S.: The Treatment of Tuberculous Joint Disease in Children. An Address Introductory to a Discussion on the Subject. (1) Indications for Surgical Interference with Remarks as to the After-results.—*Ibid.*

P. Turner, M.S., F.R.C.S., and C. E. Iredell, M.D.: Two cases of Rodent Ulcer treated by Fulguration.—*Ibid.*

MEMORANDA. Medical, Surgical and Obstetrical. R. H. Jocelyn Swan, M.S., F.R.C.S.: The Value of Anchored Dressings in Surgery.—*British Medical Journal*, February 10th, 1912.

The Pre- and Post-operative Nursing of Intestinal Stasis.

Owing to the general interest taken in Mr. Arbuthnot Lane's work on intestinal stasis, it is thought that a few notes on the pre- and post-operative ward treatment may be of value. These have kindly been supplied by Sister Martha.

In all cases the patient should be admitted at least a week before the operation; the X-ray examinations and the preparation of the patient with purgatives, enemata, and diet necessitating this length of time. At 6 a.m. the morning after admission the patient is given bismuth. bicarb. iv. oz., and is X-rayed eight hours after, and for the two or three days following, to determine the amount of stasis and the general condition of the large intestine. As soon as the X-ray examinations are completed, the patient is given one dose of ol. ric. i. oz., followed by an enema saponis night and morning for three days. During these days the patient is kept on a strict diet consisting of Bovril, water and tea only.

The evening before the operation the skin of the whole abdomen is thoroughly washed with ether soap, and the hair carefully shaved. Iodine is applied the next morning by a "scrubbed up" nurse, using sterilised swabs. A sterilised compress is then applied, which is covered with wool and firmly bandaged. Two injections of morphia gr. $\frac{1}{4}$ with atrop. sulp. gr. 1/100 are given, one seven hours, and the second, one hour before the operation, followed usually by the open ether method of anæsthesia.

The patient is prepared for the theatre in the usual way as regards warmth and clothing. The axillæ are painted with iodine, and in the theatre, before the anæsthetic is commenced, infusion needles are inserted, and the patient is infused with normal saline solution, generally two pints before the first incision is made, while during the operation from four to six pints are absorbed. For this purpose Mr. Lane uses his special apparatus, which consists of a rubber bag which has a capacity of two pints. A long tube from the bag is attached to a hollow needle. This bag is suspended above the head of the patient. The abdomen is again painted with iodine when the compress is removed.

Two points of nursing interest must be mentioned in connection with the operation:—

i. The Rectal Tube.
ii. The Fomentations.

i. The rectal tube is inserted during the operation, that is, after the anastomosis is made and before the abdominal wall is closed. In the ward this tube, which is stitched in, is connected with a long piece of india-rubber tubing, and drains into a receptacle at the side of the bed. It remains in for six days; the average drainage being ten ounces a day.

ii. The Fomentations.—Instead of the usual sterilised pads, a large sterilised fomentation is applied, covered with a large piece of jaconet and wool, and one of Mr. Lane's abdominal binders keeps this in position. A spica bandage is always put on over this, avoiding by this means the danger of the dressing being displaced with a restless patient.

In these extremely toxic patients, in whom undue absorption from the large intestine has been going on for a long time, the resistance of the tissues to infection with bacillus coli communis is greatly lowered. The tissue of the abdominal wall becomes easily infected by mere contact with the bowel, and in the prevention of this wound infection the use of hot fomentations is of the greatest value. The local hyperæmia induced is no doubt the essential factor in their action, while experience has shown that they are at any rate extremely effective. Before Mr. Lane introduced this treatment the healing of the wound was sometimes delayed by the presence of large quantities of pus, which did not, however, affect the patient's health; now, however, this complication has been entirely obviated.

When first the patient is returned to bed, the foot is raised, and, of course, hot bottles and blankets suitably arranged. A firm flock pillow is placed under the patient's knees, and the rectal tube arranged. The infusion needles are removed, and hot wool or fomentations applied to the chest until all the saline is absorbed.

The great advantages of the saline infusion are that there is practically no post-operative shock, that vomiting does not exist, and that these patients never suffer from the great thirst which so frequently accompanies an operation.

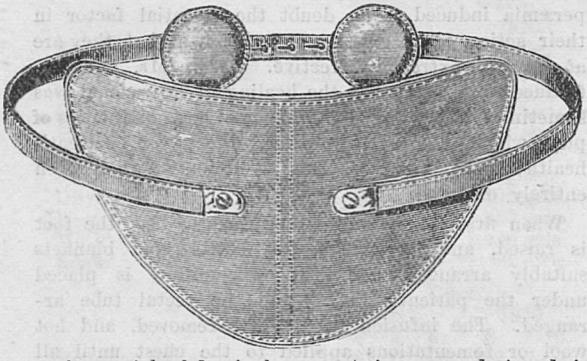
When the patient is completely round from the anæsthetic, she is put in the true Fowler's position, *i.e.*, practically sitting upright in bed. To secure this an air-cushion is required, and at least three flock and two feather pillows, also one of Mr. Lane's bolster pillows for the knees. Bands of webbing are attached to these pillows, which are fastened on either side to the head of the bed, making it impossible for the patient to slip. When well arranged, the patient is most comfortable; indeed, so much so that during her convalescence never can one rob her of one of her pillows; abdominal drainage is secured, dangers of post-operative respiratory trouble greatly reduced, and the patient is able to take a general interest in her surroundings which was not possible when lying flat, when all mental activity was concentrated upon her own condition.

The special nursing for the first two days includes an hourly pulse, four-hourly temperature, changing fomentations hourly under the strictest aseptic precautions, the lint being boiled for an hour before it is applied, and the nurse "scrubbed up," with a second nurse to assist her. On the third day the

fomentations are changed every four hours. The sutures are removed usually on the tenth day, and a gauze dressing applied.

Water only is given to the patient for the first two days, then tea, Bovril, Plasmon, going on gradually to jelly and custard; during convalescence fish and chicken are given, never meat. Pure liquid petroleum ii. oz. t.d.s. p.c. is given after the first day.

Great care is used with regard to the washing and moving of the patient. For the first week three nurses are required, as the present method of rolling the patient cannot be used with these cases because of the rectal tube. At the end of the fourth week the patient is allowed up on a couch, and is usually discharged at the end of six weeks.



A special abdominal support is worn, designed in accordance with Mr. Lane's suggestions. It is inexpensive, and has not the disadvantages and discomforts that are inevitable with the ordinary abdominal belt. It is extremely simple to put on, and lasts much longer than the more complicated kind with many straps, laces and buckles. It is very light, being made of aluminium covered with kid or wash leather, and gives constant and definite support to the lower abdomen.

M. & L.

From the Gazette's Special Pathologist.

J. S. C., CLITHEROE.—The red blood corpuscles do not show any marked abnormality, while the white blood corpuscles show a fairly well-marked polymorphonuclear leucocytosis.

H. L., MANCHESTER.—This specimen is not very well preserved and is very unusual in type. It consists of a branching system of capillary vessels enclosing alveolated masses of large cells with anastomosing processes. Occasional strands of dense fibrous tissue occur in place of the capillaries and form a ground work for the growth. It is not a sarcoma, but rather has the structure of an endothelioma of the perithelial type. It is not encapsuled, but we do not regard it as a malignant growth.

PATHOLOGIST.

The History of Dentistry.

Summary of Paper read before the Dental Society on December 8th, 1911, by GUY NEELY.

HISTORICAL dentistry, like all history, should be approached in the spirit of investigation, the causes and consequences of events in their sequence studied, and deductions drawn therefrom which may shed light on future practice. The dentistry of to-day relies too much on routine; deduction, innovation, even controversy, are discountenanced.

The freshman, if less swathed in acquired knowledge, naturally would produce at first inferior work, but, forced to use his commonsense, powers of intuition, and deduction, would ultimately be more open to fresh ideas, and might immensely further the advance of dental science. All honour to the king of Siam, who, goaded by necessity, made himself an excellent denture of cocoanut wood, and the Chinaman, with his home-made incisor, strong enough for chewing betel—a plant said to have a marked preservative action on dental structures. Historical research into such racial customs may be extremely suggestive—the orthodox Brahmin with his undecayed teeth, the painless extraction practised in parts of China.

Coming to the consideration of dentistry as a whole, an inexperienced worker can only with diffidence offer some thoughts bearing on every-day difficulties. The progress of dentistry was, for many centuries, continually retarded by international warfare and penal laws, and its struggles and successes buried in obscure records. Ours is no new profession. Even about 3700 B.C., Egyptian practitioners were treating gumboil and alveolar abscess, while erosions and pulpitis were recognised, and conservative treatment of the masticatory apparatus was attempted.

By 1000 B.C. mechanical work was fairly advanced. Etruscan records prove the existence of bridge work in particular, many excellent specimens being extant. About 450 B.C. Hippocrates dealt with scalings, extractions, and erupting wisdom teeth. He also invented a jaw splint, and wrote on foul breath and milk dentitions. His observations on caries have scarcely been improved upon. By 218 B.C. dentistry was flourishing in Rome, and bridge work practised, still on Etruscan lines. About 80 B.C. Celsus began to fill teeth with lead before extraction, and replaced the mandible splint by ligatures. Scribonius Magnus's view that worms caused caries was dismissed by Galen, the greatest physician of Roman times, who ascribed all dental disorders to acid humour. He wrote much on dental diseases, and was adverse to extraction, striving to relieve toothache otherwise; failing this, he loosened the tooth by a process of his own.

Succeeding the Romans on the Mediterranean, the Arabs introduced replantation and cauterisation; but with the Middle Ages, dentistry fell largely into the hands of extortioners, hangmen, and barbers. Anæsthesia by opium juice was, however, performed by 1360 A.D. In 1460, excavation of caries and fillings were attempted. In 1648, wax impressions were apparently first taken. Later, the antrum of Highmore was investigated, and the foundations of dental histology laid by Malpigni. In 1700 came the first public examination for dental surgery, and Pfaff, with his plaster models, was followed by Hunter. Henceforward dentistry works on definite scientific lines. Hunter made valuable investigations with regard to caries, but his contemporaries generally preferred transplantation to conservation. Crowns, however, were made, but usually of the Logan type. Root-filling began in 1800, amalgam and vulcanised rubber were invented in 1855, rubber dam in 1864, and the dental engine in 1870.

The object of these disjointed and perhaps unpractical remarks is to awaken inquiry. Is it, for instance, the fact that caries seldom attacks men over fifty? Does smoking really militate against caries? Are Northern races actually more susceptible to dental trouble than dwellers in warm climates? Again, why has transplantation, carried on for centuries with comparatively remarkable success, now practically ceased? Could it not advantageously be revived? What are the different staining effects of different beverages and foods on the enamel structure?

These questions may seem childish, but the inquisitiveness of the child frequently sets scientific discovery in train.

Looking to the future, can we dentists reflect the glowing confidence of "Old Guyite" with regard to the medical profession? No! We have two ancient foes—our own spirit of commercialism, and the unqualified practitioner. Dentistry is looked upon nowadays chiefly as a remunerative profession: this lowers its status. But the unqualified man is our worst enemy. Dr. Kerr, of the London County Council, bears painful witness to the effects on school children of quack practices. One girl paid £2 for five stoppings, all of which fell out within a week!

Not to Government, but to ourselves must we look, to drive the quack from the field. Let every qualified man be allowed to select for free hospital treatment certain of his poorer patients; let necessary artificial work be done for these at cost price, and quacks will no longer undersell the hospitals.

*Here is one case, a sample of thousands. A woman had all her teeth extracted at Guy's. Four months later she was still toothless, being unable to afford the hospital prices, and not knowing how to set about procuring dentures, hoped to scrape up enough soon for a quack. Let our best men, our splendid Dental Associations, look to it!

Contrast medical with dental practice. A medical patient receives the services of the finest men in the medical world for nothing, however long he may require them: the dental patient is treated by a student, within business hours only, for a fee!

Perhaps my outspokenness needs an apology. But our hospitals themselves have taught us students the great lesson that the patient must be our first consideration. Now, most poor patients cannot possibly attend during the canonical hours 9—5; so they drift through the open doors of the quack. Why should not relays of students work from 6—8 at such needy out-patients?

The connection with historical dentistry? Simply that ours is the old, old story: the hangman and barber damaging the honest practitioner. So long as hospitals perforce send patients to the unqualified man so long must they shoulder his mistakes.

We owe much to the specialist investigator, but is our practice, grounded on his research, to be invalidated by the rampant quack? Specialist, Practitioner, and Hospital must advance united, all working for the common good, till every patient, rich or poor, shall command the best advice and treatment that human endeavour can accomplish.

*It is only fair to state that since this paper was written, this case has been treated at Guy's at a purely nominal sum.—G. N.

Notices.

Medical Revision Classes.

A test examination in Medicine for the above Classes will be held on Tuesday, February 20th, at 10 a.m. in the Committee Room.

No Candidate will be admitted to the Revision Classes under any circumstances whatever who does not attend this Examination.

The result will be communicated to each Candidate, but no list will be published.

Guy's Hospital, February 6th, 1912.

The John Lucas Walker Studentship.

Applications for this Studentship, the holder of which shall devote himself (or herself) to original research in Pathology, are invited, and should be sent, accompanied by copies of papers containing published work and references—not testimonials—before 19th February, 1912, to Professor G. Sims Woodhead, Pathological Laboratory, New Museums, Cambridge, to whom also applications for further information regarding the Studentship may be addressed. The Studentship is of the annual value of £200 (grants may also be made for assistance and apparatus) and is tenable, under certain conditions, for three years from 18th April, 1912.

More Days in the I.M.S.

Port Blair, Andaman Islands.

THIS is a little world of its own, connected, it is true, with civilisation by wireless telegraphy and a weekly mailboat service, but yet so remote that even the strikes and the great heat in England aroused but a languid interest.

Here live an European community of about 250, including a British Infantry detachment 140 strong: also a similar number of Native Infantry, 800 Military Police, about 12,000 convicts, and a few hundred free people. We must not forget also the original inhabitants, now reduced to about 2,000 Andamanese, and an unknown number of their great foes, the Jarawas, who live out in the jungle, and are so wild that no male Jarawa has ever yet been caught.

The medical establishment of the settlement consists of three I.M.S. officers, and a subordinate staff of Junior Medical Officers and Assistant Surgeons, who are all natives of India. The Senior Medical Officer (who is usually of the rank of major) is the Chief Administrative Officer, and under his care are all the outstation hospitals, leper and lunatic asylums, Andamanese home, and last, but not least, the Chief Commissioner and his family.

The British and Native detachments are looked after by the "C. C. Station Hosp.," and as these troops are usually very healthy, the post is almost a sinecure from a medical point of view. But if a Junior I.M.S. man feels a desire for a real "loaf" for a change, he could not do better than take on this billet, as he can very well fill in his time with fishing, sailing, cricket, golf, tennis, stické, hockey, or snipe shooting, with excellent billiard tables and bridge of an evening if he wishes. As he also has a free bungalow and a boat and crew to himself, a married man could do worse than come here.

The third I.M.S. appointment is the one which I set out to describe at the commencement, and which has only been in existence a few years. The list of duties appertaining to this post was, at first, a formidable one, but it was soon found to be quite impracticable, and it now consists of the following:—

a. Civil Surgeon to all the European community, save the Chief Commissioner and Military Officers and their families.
b. Medical Superintendent, Cellular Jail.
c. Medical Superintendent, Female Jail.
d. Medical Officer in charge of Military Police.
e. Charge of a Convict Dispensary.
f. Administrator of the Clothing Grant.

The reader's comment will probably be "quite enough too," and so it is, and, as I said in a previous letter, every anna of the pay of R.800 a month is fully earned. There is no lack of variety in this appointment. If a jail is dull, there will probably be a maternity case away out in the district; if one's private patients are so healthy that no fees are to be made, then two whole days may be taken up with taking stock of blankets, suits of clothing, towels, dusters, and the many other articles manufactured within the jail walls. Or an operation at the Police Hospital, followed by "general repairs" in an assault case in the jail, and a consultation with the C. C. Station Hospital on a difficult fever case may well fill up a day which was planned to be devoted to sport or the writing of mail letters.

With so much variety it is difficult to describe the average day, but, as a rule, work commences about 7 a.m. with a visit to the Police Hospital, and thence to one of the jails an hour or so later. A return is made to the bungalow about noon for breakfast, after which office work fills up most of the time until tea. After tea is the time devoted throughout the East to exercise and recreation, but on many days committee and other meetings, lectures, etc., will absorb the hours until dinner, and soon after dinner comes bed.

On reviewing the work of the past 18 months, several busy days come to mind, of which I will only burden the reader with one or two. On one occasion I was awakened from my slumbers at 5 a.m. by a persistent ringing of the telephone bell (for we are up to date in this respect). I hurried to it, though I knew well that the message would be merely "5 o'clock, sir." It was the head jailer's method of ensuring my rising in good time for the day's work. At this hour there was barely light enough to dress, and the sea and land were covered with white mist. But momentarily it grew clearer, shafts of light shot upwards from the east, and soon the mists rolled away and showed the orb of the sun just rising, a brilliant red, from the glassy sea. *Choto haziri* over, a short ride brought me to the Cellular Jail, when the clock hands pointed to a few minutes short of 6 o'clock. There I found one of the magistrates awaiting me, and we went in together to a small building where a group of jail officials stood, surrounding a convict who was carefully handcuffed behind his back. A few words were spoken, a short order given, and the man was marched up a slight incline to a small shed where a rope hung dangling from a huge beam. The preparations are quickly made, a sharp "stand clear" is heard, a lever pulled, and the man disappears from view as a trapdoor in the floor opens beneath him. Only the sudden jerk of the rope, followed by a complete stillness tells us that all is over, and that another has paid the penalty for his double crime. I say "double" advisedly, for he only escaped hanging by being transported for life, and now has committed another—brutal—assault on a fellow convict. The whole has taken less time than it takes to write, and, within a few minutes after the hour, the warders are busy unlocking the jail.

This is built in the shape of a star-fish, a central tower guarding the entrance to seven radiating three-storey blocks, each block containing about 100 cells.

The hospital is in a separate block near the jail gates, and thither we went for the morning round. The chief diseases are malaria and dysentery, but there are often malingerers—feigning insanity, hemicrania, and debility—and it may tax one's utmost powers of diagnosis to distinguish the true sick from the shammers. Luckily there was nothing serious on this occasion, so a long stay was unnecessary, and 7.30 found me up at the Police Hospital a mile away. Here, again, much the same diseases are met with, for the native police—in the Andamans, at any rate—are as bad at malingering as the convicts, and more unhealthy.

After finishing with them, there were convicts to see at the dispensary close at hand, and the various invalid gangs who were paraded for their weekly inspection. This had to be hurried through, for a message had come from an officer's wife, asking for a

visit. It meant another mile's uphill riding, and a longer visit than could really be spared, for the lady proved to be talkative, though not seriously ill, and the old Guy's saying that "a good bedside manner is worth £200 a year" is a true one, and signs of impatience are fatal.

However, the two miles down hill back to the jail did not take long, and by 9.30 I was going round the worksheds, examining oil mills, half made carpets and towels, cane furniture of all sorts, a core matting for the gymkhana cricket pitch, and netting for the tennis courts, and discussing the while numerous plans for increasing the profits and decreasing the expenses of the jail. The Indian seditionists, of whom there are about 30 in the jail, including the notorious Savarkar, had been giving trouble and had to be summarily dealt with, and these cases for trial, together with office work, did not permit a return to the bungalow and breakfast until after 11.30.

The meal was barely ended when a telephone message came saying that an officer on the mail steamer had dislocated his elbow, and would I come at once? This meant a cycle ride of 3 miles in the heat of the day, a row out to the ship, an anæsthetic, and the manufacture of splints, and then a return journey. A visit to another lady patient on the way back brought me to tea-time, after which the female jail had to be visited, hospital patients seen, and office work done. An effort to read the latest G.H.G. after dinner was an absolute failure, and there was nothing to be done but to tumble into bed and sleep!

My first "day off," some months after arrival here, also comes into my mind as I write. My wife and I had decided to accept an invitation of the Chief Commissioner, and spend the day with him at the "hill station" of the settlement. This consists of two bungalows on a hill about 1200 feet above sea-level, and two to three hours' journey away. Leaving about seven in the morning, we drove to the jetty in a large rickshaw, propelled by five convicts, and there found a steam launch waiting to take us across the bay. We had decided to walk up the hill, and the shady path, almost covered in by the tropical growth, formed easy going. On arrival we heard that some unknown person had been telephoning for me, but having no patients at the time I did not worry, and we sat down to breakfast with appetites stimulated by the walk and the bracing air of the hill-top.

Hardly had we finished breakfast when the telephone again rang violently, and a man's voice, which I easily recognised, told me that his wife had—five minutes ago—presented him with a son, and that neither the doctor (myself) nor the nurse were present! "A fortnight too soon" was my mental comment as I called for a jampan for my wife, and we set off at a run down the hill.

As we hurried past the other bungalow the occupant ran out with the news that a convict had run amok in the jail, and had hit three others on the head with an axe, and that two were dying. "Troubles never come singly" was my only reply, and on we went.

A launch awaited us at the foot of the hill, and by about 1.30 my chief anxiety was relieved by finding the mother and baby peacefully sleeping. The rest of the afternoon was occupied in patching up the broken heads of the three convicts (all of whom recovered) and then after a welcome tea, I returned to my two patients of the morning. As I was chatting with the proud father and enjoying a well-earned smoke, a note was handed to me from the I.M.S. man in charge of the British troops. "Dear B.,—I've a case I should like you to look at as soon as you are free. I shall be on the tennis courts." A few minutes later we were on our way to his hospital, and there found a young soldier critically ill with general peritonitis. The only chance for him was operation, and that was at once decided on. But emergency operations out here cannot, except in a few large cities, be done with the ease and speed of a well-appointed hospital at home. Every instrument had to be taken out of vaseline and cleaned, water had to be got to boil (often no easy matter), towels, etc., obtained from the stores and sterilised. The verandah had to be converted into an operating room and a hanging lamp borrowed from a neighbouring bungalow before we could see to operate. Consequently, over an hour had passed before things were ready, and that hour made all the difference. The operation, once started, was carried out by my companion with great skill and quickness, the completely ruptured gut sewn up, and the patient returned to bed, but he only survived 24 hours. For ourselves, we got back to dinner about 10 p.m., and thus ended my first day's "holiday" in the settlement.

Since writing the above an episode has occurred which bears out a remark, made in a previous letter, to the effect that one must always be prepared, in jail work, for sudden epidemics. In this case it was bad fish at the bottom of the trouble, and in the space of 24 hours no less than 120 convicts were admitted to the jail hospital with acute ptomaine poisoning. The hospital looked like a shambles; as my native assistant graphically wrote in his report: "the verandahs were crowded by a large number of the sufferers, some vomiting, some rolling on the ground with abdominal pain, but all purging and making most pathetic moaning and groaning noises and crying for water." And yet only the day before we had been congratulating ourselves on the excellent health of the jail and the comparative emptiness of the hospital!

F. A. B.

Guy's Hospital Dance, November, 1911.

STATEMENT OF ACCOUNTS.

Received from Sale of Tickets ...	£206	0 6
Less 4 Tickets returned	2	10 0
	£203	10 6
Expenses	142	14 3
Profit	£60	16 3

DISTRIBUTED.

To Guy's Hospital Ladies' Association	£40	0 0
To Christmas Entertainment, per President of the Residents	20	0 0
Balance in hand	0	16 3

W. M. MOLLISON, *Hon. Treas.*
A. S. ROE & G. R. HIND, *Hon. Secs.*

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Health and Empire. By F. E. Fremantle. (John Ouseley.) Price 7s. 6d.

Seldom does the medical reviewer find among his tasks such a pleasant one as that of following Mr. Fremantle from chapter to chapter and from country to country in search of health, and the factors in the maintenance of health. We would say emphatically that this is one of the most attractive and important books which has recently passed through our hands; attractive because of its style and the problems of which it treats, and important because it contains a lesson from one who is competent to teach.

The various problems of Imperial Health—from plague in India, to town-planning and the inspection of houses—are dealt with with a directness which at any rate is a guarantee of the author's honesty. Although one may not be able to agree with Mr. Fremantle's politics, nor, indeed, with some of the views expressed in his book, yet we are at least certain that we are dealing with a sincere worker in the field of Imperial Health, and with one whose ability makes his opinions of the greatest possible value; consequently, it is to be hoped that in the near future he may be in a position to carry some of his projects into effect, and to assist in removing some of the many defects in Imperial administration which he points out.

One fault—if fault it can be called—we would point to in the book is the rather exuberant enthusiasm with which certain points, once made, are insisted on again, and yet again. For example, we read on the second page of the 7,000,000 lives lost through the plague in the Punjab. We were impressed and astonished, and eager for the remedy. We read of that 7,000,000 again, and again, and yet again, until we were weary and annoyed, and yes, even inclined to challenge the figures! Nevertheless, Mr. Fremantle intends his book to make a popular appeal, and that repetition is the essence of success in such an undertaking is easily seen by a study of the half-penny papers or the speeches of certain eminent politicians.

While the style of the book is, in general, all that we should expect from Mr. Fremantle's able pen, yet the abundant use of adjectives, mostly a confession of weakness, appears to us a little unnecessary—such sentences as:—"Evil is just as prevalent under the the smooth-faced, press-flattered democracy of to-day as under many a mediæval tyranny; just as hateful in the enlightened and wealthy corporations of the old world as in the wild-oat sowing, hustling municipalities of the new"—lose a deal of their force from their very forcibility.

The fact remains, however, that Mr. Fremantle has a lesson to teach, and that he teaches it in a delightful volume which teams with observation, suggestion, and interest.

We trust that the book and its moral will obtain a wide circulation not only among the medical profession, but also among the laity, without whose help our profession, even if it understood what was expected of it, would be unable to carry out the immense but splendid task which Mr. Fremantle lays before it.

Association Football.

GUY'S 2nd XI. v. PARTHIANS' RESERVES.

SURREY JUNIOR CUP—FIFTH ROUND.

This Cup Tie was played at Honor Oak Park on Saturday, February 10th, and resulted in a win for the Hospital by 8 goals to 1.

The first half was evenly contested, but whereas the home forwards made use of their opportunities, and their opponents did not, the Hospital at half time were leading by 3 goals (Coxon 2, James 1).

Early in the second half a certain amount of feeling and temper were displayed by certain members of both sides, and the referee was kept busy. Our opponents scored from a penalty, but further goals for the Hospital were scored by Stebbings (3), James (1), E. L. Jones (1) from a penalty, and the final score was as stated above. In the latter half the Hospital had all the play, and the defence quite mastered our opponents' forwards. A special word of praise is due to the home forwards, who gave an excellent display throughout on an extremely heavy ground.

GUY'S.—Gray (goal); Kidman, Gill (backs); Wallis, E. L. Jones, Wain (halves); Rook, James, Coxon, Stebbings, Staley (forwards).

Birth.

SWAN.—On February 11th, 1912, at 75, Wimpole Street, the wife of R. H. Jocelyn Swan, M.S. Lond., F.R.C.S., of a daughter.

Marriages.

MANDY—WELLS.—On January 31st, at S. Peter's, Norbiton, by the Rev. H. Williamson, M.A., Vicar of S. Andrew's, Radcliffe, assisted by the Rev. H. Wilson, M.A., Vicar of the Parish, Percy Stephen Mandy, M.R.C.S., L.R.C.P., of Hythe, Kent, youngest son of Thomas Mandy, of the Mount, Woolwich, to Ada, daughter of Mrs. Wells, of Manaton, Kingston Hill.

DENSHAM—CHEESMAN.—On February 1st, at St. Peter's, Eaton Square, by the Rev. C. Luxmoore-Ball, Acting-Chaplain of Guy's Hospital, Ashley Bloomfield Densham, of 18, Stratford Place, W., second son of the late Henry Densham and Mrs. Densham, of Avon Grove, Sneyd, near Bristol, to Edith Muriel (late Sister Addison, Guy's Hospital) elder daughter of Lieut.-Colonel Cheesman, V.D. and Mrs. Cheesman, of Nettlepole, Little Chard, Kent.

Deaths.

HENDERSON.—At the Red House, Amersham, Bucks, on Thursday, 8th inst., aged 6 months, Joseph Richard Guy, son of Dr. and Mrs. Hal J. Henderson.

SMITH.—On January 30th, suddenly from syncope, James Snowdon Smith, M.R.C.S. Eng., L.R.C.P. Edin., Hon. Surgeon to Tavistock (Devon) Cottage Hospital, aged 57.

Eds.—E. G. S. and A. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 618.] MARCH 2, 1912. [SIXPENCE.

CONTENTS.

	PAGE
Passim	81–83
On the Treatment of Peritoneal Wounds ...	84–87
Change of Address	87
Appointments	87
Papers by Guy's Men	87
The Causes and Varieties of Infantile Diarrhœa and Vomiting. Clinical Lecture by Dr. Cameron	88–93
Correspondence	93–95
Guy's Hospital Musical Society	95
Notice	95
Medicine and Psychology. Paper read before the Physical Society by R. A. Fawcus	95–98
Reviews, etc.	98–99
Sport	99–100

Passim.

ALL who have met him will have heard with the deepest sorrow of Mr. W. T. Clarke's illness. Few men are so generally popular as is Mr. Clarke, and we feel sure that everyone at the hospital will join us in hoping for an improvement in his present serious condition. In consequence of Mr. Clarke's illness a vacancy has occurred in the post of House-Physician to Dr. Pitt, and we understand that Mr. M. Dobson, whose reappearance will be generally welcomed, has been appointed.

IT is always desirable to combine where possible the work of the Hospital with instruction to the workers, and in this respect it is very generally felt that the work of the dresser in the Surgery might easily be made a good deal more profitable than it is at present. We refer to the fact that the dresser sees, and diagnoses cases in the Surgery, and is often prevented, by lack of time and opportunity, from following them up as Out-Patients. This matter has been referred to previously in the GAZETTE, and if some system could be devised for returning Surgery cards, with a corrected diagnosis, to the dressers, we feel sure that it would be greatly appreciated. It is, perhaps, impossible to expect the already hard-worked O.P.O. to add yet another to his many burdens, but it should be easily possible for the cards of all cases seen by the Physicians or Surgeons, either at general or special Out-Patients, to be returned with the correct diagnosis to the Surgery. Such a system would be quite easy to carry out, and would, we feel sure, be very greatly to the advantage of the dressers.

As a result of the recent changes in the date of certain student appointments it is found that house-surgeons, dressers, and clinical assistants begin their work on the same dates. The consequence of this is that the whole firm are unfamiliar with the cases in the wards, a state of affairs in every way undesirable. In order to remedy this it has been proposed that there should be a month's interval between the appointments of Out-Patient Officers and House-Physician or House-Surgeon, and that this month should be taken as a holiday by the Out-Patient Officer after his appointment as a resident. We have repeatedly pointed out that the post of Out-Patient Officer is a great deal more trying than many people apparently think, and this suggestion for providing them with a month's holiday at the end of their appointment will be very generally appreciated. We understand that the suggestion is being favourably considered, and will probably come into operation. Should this be so, the house-officers appointed in January and those about to be appointed in April will be required to remain in office for seven months in order to inaugurate the change.

IN our correspondence columns will be found a letter from Mr. Ormond dealing with the question of ophthalmic work in general practice. The matter is an important one, because, as he

rightly points out, this branch of treatment is rapidly falling into the hands of the opticians. There are no doubt many objections to refraction work being done in general practice, not the least of which is the utter ignorance of the ordinary medical man of even the rudiments of ophthalmology. This ignorance is largely the fault of the examining bodies, and although we would be loth to add anything to the already over weighted burden of the unfortunate student, yet if a course of ophthalmic work were made compulsory it would undoubtedly be to the benefit both of the public and of the medical profession. We shall be very pleased to hear the views of our readers on this question, and particularly those of men who already combine ophthalmology with their ordinary medical work.

We understand that the question of Clinical Lectures is shortly to be the subject of an enquiry by a committee at the hospital, and it is greatly to be hoped that, as a result of their deliberations, the whole system will be thoroughly revised. At present the only men who are able to attend clinical lectures are those to whom they cannot be of the slightest use, a state of affairs which, although common enough in matters other than lectures, is yet unfortunate. The spirit of conservatism which pervades the whole medical curriculum still insists upon courses of systematic lectures, whose utter uselessness, from an educational standpoint, is sufficiently obvious to be almost worth pointing out. Nevertheless, since such compulsory lectures have apparently to be attended, it is necessary that they should be given at times when the majority of men are, at any rate, *able* to attend them; consequently clinical lectures, which, perhaps, are of value, have to be held at such utterly impossible times as 1.30 p.m.

It is, perhaps, too much to hope for an early abolition of compulsory lectures, but surely much might be done to make them, at any rate, useful. It would seem to want but little elasticity of terminology to replace a course of systematic lectures by a course of clinical lectures at any rate, on such subjects as Surgery and Medicine. If these were held at the times of the present systematic lectures, we feel sure that even their compulsory nature would not keep men from attending them.

With the useless systematic lectures thus done away with, it would be easy to devote the time now given to clinical lectures on general and special subjects, to demonstrations on selected cases in the wards and Out-Patients. There cannot be the slightest doubt that such demonstrations are by far the best method of teaching there is, but, since time is unfortunately limited, they tend at present to be rather neglected. We feel sure that such a substitution of clinical for systematic lectures, and of demonstrations on selected cases for clinical lectures would, at any rate, meet with the approval of students; whether it would also please those responsible for the conduct of examinations is, we fear, a much more doubtful question.

All hail! Mactreth, thou shalt be R.S.O.!

We have much pleasure in announcing that the Treasurer, subject to confirmation by the Court of Committees, has appointed Mr. F. D. Saner to the post of Resident Surgical Officer, vacant through the resignation of Mr. Trethowan. With the laurels of Christmas still fresh upon his brow, Mr. Saner's appointment will be a most popular one, while in keenness and enthusiasm he should be an able successor to Mr. Trethowan. Mactreth's innocent remark of "I wonder if they *are* the people who make the appointments," seems to have been even nearer the truth than is usual, even in a Christmas play!

When Mr. Charters Symonds retires in July, Mr. Steward will be promoted to the full staff, and in consequence there will be a vacancy in the Throat Department. We understand that in the future there will no longer be one surgeon in charge of the Throat Department and another in charge of the Ear Department, but that there are to be two surgeons in joint charge of the Throat and Ear Departments. Each throat and ear surgeon will see both throat and ear cases in Out-Patients twice a week, on Tuesdays and Thursdays, and Wednesdays and Fridays,

respectively, at 12 o'clock. The throat and ear beds will be divided equally between the two surgeons, a system of "taking-in," similar to that at present in use in the eye wards, is to be instituted. The interdependence of diseases of the throat and ear is so close that this arbitrary separation into two departments has always seemed a pity, while the present crowded condition of Throat Out-Patients is another powerful argument in favour of the new arrangement, by which throat cases will be seen oftener than once a week. We understand, further, that Mr. Layton will, in all probability, join Mr. Mollison as joint Throat and Ear Surgeon.

New regulations are generally, from the very fact that they are new, also unpopular, but a marked exception to this is to be found in the present arrangements for the supervision of the treatment of fractures in the Surgery. At present the Fifth Assistant Surgeon attends in the Surgery on Friday and Saturday mornings to supervise the treatment of fractures by the dressers, and as a result of this there should be a very great improvement in what has been quite the least efficiently treated class of Out-Patients. Through the work of Mr. Lane and others, Guy's has acquired a world-wide reputation in the operative treatment of fractures, and it has always seemed a matter for regret that the conservative treatment of these cases should have been in the past, to say the least of it, less efficient.

While on the subject of fractures it has always seemed to us a pity that the reports on these cases are of such very small value to anyone who wishes to look them up. This is due to no slackness on the part of the ward-clerk, but merely to the fact that the cases are put on splints in the Surgery, and in consequence the clerk has very often no opportunity of seeing them at all, or at any rate not until time and swelling have made such opportunity useless. Some system of recording the condition of a fracture as seen before admission in the Surgery would be a very great help to the clerk, and would cause very little trouble if done by the House Surgeon at the time of admission. If a form were provided in the Surgery, with a few simple headings, it could quite easily be filled in and sent to the ward with every case of fracture, and would form a good comparison with the condition found by the clerk when able to examine the case. So much useless, or very nearly useless secretarial work is of necessity done in the hospital that it seems a pity, for the sake of a little extra trouble, to spoil a great deal of valuable material, and we feel sure that such a record made at the time of admission would be appreciated by the Surgeon as well as by the House Surgeon and Ward Clerk.

We are asked to announce that the Final for the Inter-Hospital Rugby Football Cup will be played on Thursday, March 7th (not March 6th). Tickets for the stands may be obtained from H. Rockett, Secretary, Richmond Athletic Ground, Richmond. There will, as usual, be a dinner after the match, to be held at the Imperial Restaurant, and tickets for the dinner, price one guinea, may be obtained from Emile de Lissa, The Lodge, Maidenhead Court, Maidenhead. In view of the scenes at last year's final cup tie, it is the general hope of all connected with hospital football that men will this year respect, at any rate, the sanctity of the actual field. Whatever attractions "ragging" may have, it is, at any rate, essential that there shall be a game, and the tramping of vast armies over the field is, to say the least of it, bad for the turf. We feel sure that an appeal to the sporting instincts of the men will prevent anything being done to delay the start of the game or to hinder its progress.

Elsewhere in our columns will be found a notice of the Annual General Meeting of the Students' Club, to be held on March 9th. These meetings are usually extremely badly attended, a fact which is very strange considering the numbers of people with a grievance against the Club. We would urge all men who have any complaints or suggestions to bring forward to turn up at the meeting and ventilate them, a procedure which they will find much more effective than continual grumbling at the Club addressed to anyone unfortunate enough to be near them.

On the Treatment of Peritoneal Wounds:

What the Peritoneum will tolerate and what it will not.

By Professor E. BUMM.

In the following communication Professor Bumm records his experience on the reaction of the peritoneum to the various kinds of irritants. He bases his remarks on the observations of over 5,000 laparotomies and numerous bacteriological investigations made during operation and at autopsies.

It has been found that experiments on animals are not of much use in deciding questions of peritoneal irritation. In response to bacterial infection, the peritoneum of the animals usually employed for the purpose differs in a marked degree from that of the human peritoneum.

A.—Mechanical Irritation of the Peritoneum.

This is incidental to every operation, but the intensity and persistence of the irritation is very variable. There is a difference in this respect between the use of moist rubber gloves and of rough dry gloves, between the use of moist or dry mattresses, and whether the latter are once or oftentimes inserted and withdrawn; also whether thick silk knots or fine catgut sutures remain after operation. Easily and rapidly absorbed mechanical irritants may remain without any injury to the endothelium, having little or no reactionary consequences. Coarser ligatures injure the endothelial coat, and tend to produce necrosis of cells. Then follows, either during the operation or soon after, a serous exudation on the injured surface of the peritoneum, which leads to fibrous adhesions, and if the injury be extensive, with a consequent large exudation of serum, a suitable nidus is provided for the bacteria which are present, and wound infection results.

As a general rule mechanical irritation is the least dangerous of all kinds of injury to which the peritoneum is liable. As soon as the irritation ceases the process of repair sets in, which in simple endothelial lesions occurs in twenty-four hours. The degree of peritoneal injury is indicated by local signs which vary from slight tenderness to severe pain, and these are associated with irritability and signs of paralysis of bowel and stomach, which disappear in from one to two days if nothing but *mechanical* irritation is at work.

1. Therefore mechanical irritation is not dangerous, and one should not refrain on its account from carrying out any operation with all care and exactitude. Make the incision large enough to get a good view; after the drawing out of a big growth the upper part of the wound can be brought together by forceps. Take time enough to secure the most perfect hæmostasis. The mechanical irritation produced by a long operation is incomparably less dangerous than the oozing of blood or the leaving of wound surfaces on the peritoneum. The same applies to leaving behind exudates, blood, cyst-contents, and the like, in the peritoneal cavity. The irritation produced by the removal of such irritants as these is by far the lesser of two evils.

On the other hand, since subjective symptoms in the early days after operations vary in intensity with the disturbance of the peritoneum, one should avoid all unnecessary exposure or contact with that membrane.

There is no doubt that the smooth convalescence after vaginal operations is due to the comparatively slight disturbance of the peritoneum; when technical difficulties necessitate that a vaginal operation should be ended by laparotomy, one is astonished to see how little the peritoneum has been disturbed by the colpotomy. If the opening into the abdominal cavity be small and the field exposed by retractors, a similar good result is obtained, *i.e.*, a painless convalescence and a soft abdomen. On the other hand, when extensive vaginal operations by V. Otts' method are performed and large portions of peritoneum are removed, the after-effects are more pronounced.

2. With regard to mechanical irritation, the question arises, Is the moist or dry technique to be preferred?

The moist treatment by using swabs, mattresses, etc., soaked in warm Koch's isotonic salt solution is certainly less irritating, but it has the disadvantage of being much less easily rendered aseptic.

Whoever operates by the moist method, and goes to the trouble of frequently examining bacteriologically his swabs and mattresses during operation, will be surprised to find how rapidly the germs contained in the fluid and peritoneal cavity grow during the operative procedure. This may be obviated by frequently changing the solution—a troublesome process and one which does not eliminate the introduction of extraneous germs. Hence the greater mechanical irritation of rough dry gauze is of the two the lesser evil.

3. Drainage by dry gauze excites strong irritation, local pain, reflex effects on stomach and intestines, and sickness. When encapsulation has occurred these effects subside and often disappear when the last piece of gauze has been removed. Another disadvantage of gauze tampons, whether made of iodoform or other antiseptic powder, is that the fluids collected in its meshes favour germ growth to an extraordinary degree.

4. *Suture material.*—The thicker the ligature the greater the irritation and the greater the amount of exudation from and into the stump. Often enough suppuration occurs and months elapse before the stumps settle down and become insensitive. If vessels are isolated the thinnest threads suffice for hæmostasis; they heal easily and do not irritate, whether they be of catgut, silk, or thread.

Hägler has shown that, as with gauze so with thick ligatures, they fill up with serum, the bactericidal power of the cells is withdrawn, and then the almost omnipresent bacteria are afforded a favourable nidus for development. Bumm had many cases of thrombosis when he used thick ligatures. In the Basle Clinic a search was made for a special bacillus, but he found that the true cause lay in the kind of suturing and the material used. Since he took to thin catgut and isolated his vessels, thrombosis has been very rare. Heart weakness and changes in the vessel walls play a very small rôle in post-operative thrombosis as compared with ligature infection.

B.—Chemical Irritation in relation to the Peritoneum.

1. There are quite a number of "indifferent" isotonic fluids, *e.g.*, salt solution, albuminous body fluids, etc. The chief is Koch's 0·9 per cent. physiological salt solution, which is recommended for irrigation. Irrigation with salt solution is excellent for removing large particles, but it is absurd to expect the most extensive washing to remove germs from the peritoneal cavity. Moreover, when used freely it produces grave shock and aids in disseminating bacteria throughout the abdominal cavity. He therefore does not recommend irrigation except where aseptic material such as vernix, hair, dermoid contents, colloid, etc., are to be removed. Where infective material is present, sponging is better than irrigation.

2. *Organic fluids.*—The irritability of these varies with their cellular elements. Ascites, serum, and parovarian fluid are probably quite "indifferent." Colloid, sterile pus, and blood lead to irritation and exudation from the peritoneum. So does animal fluid (hair and vernix), and the contents of dermoid cysts.

Encapsulation of such material as the above is not the worst we have to fear. Far more dangerous is the fact that all organic fluids favour the development of germs (which, in the present position of our technique, are present in the peritoneal space), and so form a starting-point for "operation peritonitis."

Bumm is, therefore, in favour of "unconditional" cleansing of the peritoneum from all such material, even of ascites and blood. He drains after malignant ovarian tumours are removed, and often gets ½ litre of fluid in the first twenty-four hours. He has lost cases where blood has been left in operating for extra-uterine gestation.

3. *Poisonous fluids* scarcely need a remark to-day, but Bumm recalls the effect on the peritoneum of the obsolete carbolic spray, which, apart from carbolic intoxication, produced awful pain and symptoms of ileus, even after the simplest operations.

Bumm has seen severe irritation of the peritoneum from immersion of the hands and gloves in lysol. He is very cautious in the use of perchloride solution, since he lost a case from mercurial poisoning, in which, during Cæsarean section, the uterus was completely eventrated on to the abdomen prepared by perchloride of mercury 1 in 1000.

He has no personal experience with sterile oil and camphor oil, recommended by Pfannenstiel. He thinks it scarcely necessary in simple cases; whether it is useful in bad infective cases remains to be seen.

4. *Air* which remains in the cœlom after closure probably acts as a physical and drying irritant rather than a chemical. Bumm thinks it has a paralysing effect on the bowel, retarding the escape of flatus and causing painful evacuations of the same.

C.—Bacterial Irritation of the Peritoneum.

Amongst pyogenic cocci the streptococcus is the chief. The smallest trace of virulent pus is sufficient to spread infection; often only one specific germ is found in a typical case of infective peritonitis, generally streptococcus. Still staphylo- and pneumococci can produce the same result.

The gonococcus is a great exception to the above as regards dissemination. Only once has Bumm dealt with a case of genuine gonorrhœal peritonitis, and he is of the same opinion as

probably most operators, that a pus which only contains gonococci may, as far as the peritoneum is concerned, be regarded as sterile pus.

Generally in post-operative peritonitis we have to do with a bacterial mixture of streptococci, staphylococci, and bacilli of various kinds. The exudation is a necrotic, foul fluid, and spreads slowly, fever is slight or absent, the toxic action on the heart is the predominant symptom. The germs enter the peritoneal cavity from various sources. The majority of germs come from the dust of the air. Salivary infection from loud and much speaking during operation, and by faulty protection of mouth and nose, plays a certain part. Opening the vaginal and urinary passages during operation is a source of danger, and a still greater one is injury to the intestinal tract.

Cultures in Bouillon taken during, and at the end of, an operation prove that germs in smaller or greater numbers are present in the peritoneal space, and are left behind at the end of an operation. In his last 100 laparotomies Bumm found streptococci ten times without clinical signs of inflammation and reaction of the peritoneum being noticeable. This confirms the old clinical experience that after laparotomy infection of the fatty and muscle tissue of the wound occurs whilst the peritoneum remains healthy.

The aim should be to keep the peritoneum intact and dry, danger arising if blood, ascitic or cystic fluid, amniotic fluid, etc., are left behind; also when raw surfaces are not covered, for from these blood and serum can ooze through. He instances the care necessary with the stump or wound after myomectomy, stating that if the wound is carelessly repaired, in spite of disinfection and asepsis, 30 per cent. may be the mortality from fatal peritonitis!

In radical operation for cancers it is the connective tissues which slough and suppurate, and the pus may run through gaping spaces between sutures into the peritoneal cavity and lead to foul peritonitis.

D.—Suggestions to Prevent the Spread of Infection from one Patient to Another.

Isolation of the operation theatre and its annexes from the infectious block. Nurses should only do theatre work and should not be working at the same time in the sick wards. The surgeon should not dress cases and come in contact with patients in the septic departments. In spite of the use of gloves to obviate hand infection other possibilities remain; therefore avoid all contact with septic cases.

Arrange for a theatre for septic and for aseptic cases, and for cases with high temperature of doubtful nature.

A theatre contaminated with virulent septic material can be cleansed only with great difficulty.

Complete protection of wounds from accidental contamination with virulent germs from the dust of the air is impossible by our present methods.

Conclusions.

1. Exclude all risk of oozing of blood by perfect hæmostasis.

2. Cover up the entire operation area at the commencement of an operation, pack off the area within the wound as much as possible to start with, rather than repeatedly take out old mattresses and insert new ones.

3. Blood, exudate, cyst contents, animal fluid, and pus must be thoroughly removed. The raised pelvic posture allows these fluids to flow into the upper peritoneal space, *i.e.*, the hypochondria and the diaphragmatic areas, when packing off has been neglected.

4. All peritoneal wounds must be covered with peritonem, not merely by a thin peritoneal lamella which can easily necrose, but by well-sewn super-imposed layers. Bumm uses first a row of interrupted sutures and then a continuous suture of fine catgut, in Lembert fashion, which covers the first sutures by two wide folds. Sutures of this kind, by preventing wound-secretion and the spread of germs, is the most important means for attaining smooth healing processes after laparotomy.

5. The use of gauze tampons for securing hæmostasis is disappointing and possibly dangerous. Bleeding is better stopped by transfixion, and oozing by the thermocautery.

6. Gauze drainage through Douglas's pouch is far less objectionable than when used through the abdominal wound.

In cases where infection is likely it is better to shut off the pelvic cavity by making a roof of the sigmoid flexure, the omentum, and the peritoneum of the bladder, and thereby to exclude the dangerous area from the free space. This encapsuled space can then be packed with gauze and the latter brought through the pouch of Douglas or the vaginal roof. This is much better than having a gauze tampon free in the peritoneal cavity.

7. Drainage by glass or rubber tubes is only effective as long as these dip in a layer of free fluid. Through the intra-abdominal pressure the fluid is forced out in the direction of least resistance, *i.e.*, through the tube.

We get the best results with rubber tubes in the ascites of malignant tumours, tuberculous peritonitis, or with purulent peritonitis. But this drainage ceases as soon as adhesions form in the neighbourhood of the tube, and *post-mortem* large encysted collections of pus may be found near the tube.

8. The re-opening of the abdomen in post-operative peritonitis is useless if there is a large infected wound in the pelvis in free communication with the general peritoneal cavity which cannot be shut off.

On the other hand, Bumm has often re-opened the abdomen, with the best results, in post-operative peritonitis from the infected stump of a purulent adnexal tumour. The right time must be chosen, *i.e.*, a time when the exudate is still local. If on the second or third day after operation there is a rising pulse, and restlessness and sickness increase, and local symptoms supervene, Bumm advises re-opening and drainage.

9. Perfect antisepsis has not been attained; when we have it the worst wounds will heal as well as the uncomplicated lesions. At present, however, germs are to be found in every wound, and do mischief if the condition of the wound favours their development.

Change of Address.

G. W. Badcock, L.D.S., from 13, Old Steine, Brighton, to 32, Brunswick Place, Hove.

N. Stuart Carruthers, M.R.C.S., L.R.C.P., from Guy's Hospital to "Wing Lodge," Sherborne, Dorset.

Staff-Surgeon H. R. H. Denny, R.N., from H.M.S. *Carnarvon*, Devonport, to H.M.S. *Patrol*, 1st Destroyer Flotilla.

A. L. Gardner, L.R.C.P., M.R.C.S., from Guy's Hospital to Poplar and Stepney Sick Asylum, Bromley-by-Bow, E.

Staff-Surgeon A. W. Iredell, R.N., from Royal Naval Barracks, Portsmouth, to H.M.S. *Roxburgh*, 3rd Division Home Fleet.

T. D. Lister, M.D., F.R.C.S., from 50, Brook Street to 31, Harley Street, W. New Telephone: Mayfair 5313.

Fleet-Surgeon F. Davidson Lumley, R.N., from H.M.S. *Defence*, 1st Cruiser Squadron, to H.M.S. *Devonshire*, Home Fleet.

C. Heygate Knowles, L.D.S., from 47, Rosslyn Hill, Hampstead, to 18, Worsley Road, Hampstead, N.W.

C. F. Moxley, L.D.S., from 4, Parade Terrace, Mill Road, Lowestoft, to Royal Naval Barracks, Shotley, near Harwich.

P. J. Proud, L.D.S., from Eskdale, Totteridge Lane, Whetstone, N., to 9, Pemberton Gardens, Upper Holloway, N.

I. G. Samuels, L.D.S., from 22, Museum Street, Ipswich, to 28, West Southernhay, Exeter. *Telephone No. 499.*

Appointments.

Naval and Military.

R.A.M.C.

Lieut. S. McK. Saunders to be Captain, dated February 1st, 1912.

G. A. Blake, M.B., B.S., to be Lieutenant (on probation), dated January 26th, 1912.

Lieut. G. A. Blake is seconded under the provisions of Art. 300, Royal Warrant for Pay and Promotion, 1909.

I.M.S.

Captain H. C. Keates, M.D., has passed the prescribed test in the compulsory colloquial examination in the Punjabi Language for M.O.'s posted in the Punjab for employ as Civil Surgeons, held at Lahore, November 11th, 1911.

Lieutenant F. J. Kolaporewalla has been appointed Specialist in Prevention of Disease and placed in charge of the Bacteriological Research Laboratory, Rangoon.

Lieutenants on Probation E. A. Penny and C. M. Plumptre have been confirmed in their rank from July 29th, 1911.

Colonial Medical Service.

West African Medical Staff.—R. Willan, L.R.C.P., M.R.C.S., has been appointed a Medical Officer, Southern Nigeria.

Civil.

G. W. E. Holloway, L.D.S., to be Hon. Dental Surgeon to the St. Pancras and Northern Infirmary.

Royal College of Physicians of London.

The following gentleman having passed the required examination, has been admitted a Member of the College:—

William Johnson, M.D., L.R.C.P.

Papers by Guy's Men.

H. T. Binns, L.D.S.: The Importance of Normal Inter-proximal Relationship.—*British Dental Journal*, February 15th, 1912.

Ernest F. Clowes, M.R.C.S., L.R.C.P.: A Case of Adder Bite.—*British Medical Journal*, February 24th, 1912.

H. French, M.D., F.R.C.P.: Hypothyroidism. A Lecture delivered at the Medical Graduates' College and Polyclinic, Chenies Street, London.—*Clinical Journal*, February 28th, 1912.

W. Hale White, M.D., F.R.C.P.: Some Forms of Hæmorrhage which are Difficult of Explanation.—*Lancet*, February 17th, 1912.

A Clinical Lecture on Acute Arthritis. Delivered at Guy's Hospital.—*Clinical Journal*, February 21st, 1912.

The Causes and Varieties of Infantile Diarrhœa and Vomiting.

CLINICAL LECTURE BY Dr. CAMERON.

Gentlemen,—I think you will agree with me that a knowledge of the principles of infant feeding is one of the most important things which you can take away from here into practice, and yet at the present time I think it is sometimes difficult for students to follow clearly the progress of an infant under treatment for some digestive disorder in the hospital. I suppose, roughly, one judges of the progress of a child which has diarrhœa and vomiting from observation on four points. The first and most important is the general condition of the child, its behaviour, the attention which it shows to the outside world, the way it looks at things and plays with things, its posture, its colour, and the depth of its sleep—all little points apt to be overlooked in the bustle and hurry of a large ward. Secondly, there is the curve of its weight, whether it is putting on weight or losing weight. Thirdly, there is its behaviour with regard to appetite, whether it drinks well and with relish, or whether it drinks badly. Fourthly, there is what we learn from observation of the stools. As things are at present, much of the evidence derived under these heads is, for the students, hearsay. Some of you may know that in Clinical ward I am experimenting with a scheme which I hope may bring about improvement in this, so that we shall, all of us, have the data before us to enable us to decide whether a child is improving or, on the other hand, getting worse under the treatment which is prescribed for it.

It is all the more important to get a practical knowledge of infant feeding, because, I am sure, it is a thing of which one can learn little from books. It is very difficult to write definitely on such matters, and quite naturally and rightly indefiniteness is, in the eyes of students, the greatest sin which text-books can commit. There are many obvious reasons why it is impossible to lay down rules which shall be applicable to all instances. I think the first real reason is the impossibility of finding any classification in these various forms of diarrhœa and vomiting which can be based on the post-mortem appearances. You know that in the post-mortem room it is the exception, rather than the rule, to find anything which at all explains the violent symptoms with which the child has died. Secondly, there is the difficulty of obtaining a history, either from the child or the mother, and of realising exactly what the subjective symptoms are. The third difficulty is very important, namely, the extraordinary tolerance of healthy children in good hygienic circumstances for almost any kind of feeding, so that you will see children brought up on the most various forms of diet, and all of them thriving. You cannot argue from child to child, and say that because one infant did well upon a certain diet, for instance, a diet containing starch, that, therefore, starch is a suitable diet to prescribe to a weakling which is already in difficulties with its digestion; yet such an argument is commonly advanced in recommendation of this or that diet. Fourthly, there is the lowered resistance of bottle-fed babies to all forms of infection, not only to infection of the alimentary tract, but to infection everywhere. It is bottle-fed babies who are especially liable to get colds, bronchitis, pharyngitis, pyelitis, tonsillitis, influenza, etc. Now, in all these complaints in a tiny infant the main symptom may be that of dyspepsia, which shows itself in diarrhœa and vomiting. One function only is highly developed in an infant, that of absorbing nutriment; and ailments of the most various sorts show themselves in disorder of that function. It is because bottle-fed infants are so constantly getting these pyrexial disturbances that we so often confuse tonsillitis and influenza with true disorders of digestion, with the result that feeding suitable in itself falls into disrepute. Lastly, there is all the trouble arising from the circumstance that as a substitute for mother's milk in this country, as in almost every country, we use cow's milk. Whereas the child was meant to suck its milk direct from the mother's breast, cow's milk has to travel to the infant across country by train and by cart, and during all this time of transit it is undergoing a process of decomposition. And so, before we begin to think about defects in the *composition* of the child's food, we must be quite sure that the milk it is having is fresh and of good quality; otherwise food of a perfectly suitable composition, with the right amount of fat and sugar, for example, will give rise to disturbance, and a suitable prescription will again in this way fall into disrepute. So for all these reasons it is very difficult to lay down definite laws which shall be applicable in all cases; the

causes which produce the symptoms are so numerous and the symptoms themselves are so lacking in variety.

All forms of diarrhœa and vomiting have one feature in common, namely, the increased formation in the stomach of volatile fatty acids derived from the changes that take place in the sugars and the fats of the food. With this increase in the volatile fatty acids there is also a diminution in the hydrochloric acid in the stomach. You know that in the case of a breast-fed baby it is a comparatively easy matter to make a test which shows that in the contents of the stomach there is free hydrochloric acid, while in a bottle-fed baby the test is almost always negative.

These volatile fatty acids escape through the pylorus into the small intestine and stimulate peristalsis, while at the same time there is poured out into the small intestine, neutralising them, a powerful flow of alkaline succus entericus; and yet, in spite of this excessive secretion, in infantile dyspepsia you will often find that the stool is definitely acid to litmus from the excess of these fatty acids. Here I show you a typical green stool of an infant with diarrhœa and vomiting, and I have put alongside it some litmus paper, and you can see where I have touched the blue litmus paper with the stool, that the litmus paper has turned red.

Symptoms of Simple Diarrhœa and Vomiting, Dyspepsia.

In the slighter cases of diarrhœa and vomiting, which may be grouped under the name dyspepsia, there are remarkably few symptoms other than the diarrhœa and the vomiting. So long as there is no absorption of poisonous products across the bowel wall, *i.e.*, so long as these fatty acids remain in the intestines stimulating peristalsis, and are not absorbed into the blood, there is no great disturbance of the child's general health. The child may be fretful, its sleep may be disturbed, perhaps it may be paler than normal, its eyes may be sunken and shadows may be seen under them, and so forth. Often there is some rise of temperature, perhaps to 99°, or even 100°. The curve of the weight remains stationary, or slowly falls. As the stools become less frequent and the vomiting ceases, the child appears more placid, the weight goes up again, the appetite increases, and the temperature tends to fall and remain steadily on the normal line.

Symptoms of Summer Diarrhœa or Intoxication.

In simple dyspepsia, except for a little fretfulness, which easily passes unnoticed in the ward, there may be no symptom very apparent except the diarrhœa and vomiting. It is quite otherwise in the condition which is called "summer diarrhœa," in which there is an actual absorption of poisonous material into the blood stream. It is, perhaps, a pity that the name summer diarrhœa has come into general use, because diarrhœa is only one symptom of the disease, and that not the most important. It might be better to call it "summer intoxication," because the intoxication, or poisoning of the child, is the most prominent symptom. In the worst cases the infant is almost comatose, and even when the intoxication is mild, the intelligence is clouded. This may not be very obvious when the child is roused, crying, and fretful. But if you take such a child and nurse it in your arms you find that the crying gradually fades off in an unnatural way, and that a far-away look comes over the child's eyes. Among a crowd of infants in the Front Surgery you may pick out these serious cases by a glance at their immobile expressionless faces, with eyes half open, seemingly fixed on some distant object.

Instead of the normal, quick, wriggling movements of the healthy child, the limbs are either completely motionless or are flexed or extended with a curiously slow movement. Sometimes one can take the limbs of such a child and place them in the most curious and unnatural positions, and they will remain in that posture for minutes at a time. If you then shake the child and rouse it, it begins to cry, and the whole picture of this partial coma fades away. This blurring of intelligence is the result of the absorption of poisonous products across the bowel wall, and is, perhaps, the most striking and most constant symptom of severe summer diarrhœa. Another symptom is the way in which the breathing is affected. These children are often brought with the diagnosis of bronchopneumonia, because the respiration has been so rapid and irregular. The respiratory centre is stimulated by the abnormal products of digestion which are circulating in the blood, just as we know happens in cases of diabetic coma and other conditions where there is an acidosis present. Some of you may remember a child whom I had in the Out-Patient Department a few weeks ago who showed both these conditions

very well. If the mother nursed the child in her arms, it soon sank into this trance-like condition, which I have tried to describe, and when it was quiet in that way its respiration became irregular, and the loud Cheyne-Stokes' breathing could be heard by everybody. When one roused the child, it struggled and cried, and the whole picture faded. Thirdly, in summer diarrhœa the temperature may be considerably raised, often to 102° or 103°, thus contrasting with the slight irregularity found in dyspepsia. Fourthly, the children with summer diarrhœa have a much more rapid loss of weight than is found in simple dyspepsia; and this loss of weight is due, in a great measure, to the loss of fluid. The skin becomes inelastic because the subcutaneous tissues lose so much fluid. Lastly, and this is a most important part of the diagnosis of summer intoxication in all severe cases, you will find, on examining the urine, albumen, sugar, or acetone, as evidence of the serious disturbance of metabolism. A simple dyspepsia must never be neglected, especially in hot weather, because at any time it may pass on into the far more severe and fatal malady which we know as summer diarrhœa. The transition is usually abrupt, and the symptoms of intoxication set in with great severity.

Classification of Causes of Dyspepsia.

The treatment of diarrhœa and vomiting, whether with symptoms of intoxication or not, must, of course, depend upon the cause. And so I have written up a classification of the causes of dyspepsia, which I do not think is a complete classification, but is a useful one:—

1. Over-feeding with a suitable mixture.
2. Feeding with an unsuitable mixture, for instance, too much sugar in the food or too much fat.
3. Feeding with impure milk.
4. Infection of the alimentary tract with bacteria.
5. Coincident pyrexial disorders.

In discussing this classification, it is well to make a distinction between (*a*) breast-fed babies and (*b*) bottle-fed babies, because only some of the causes in this list are at work, and have to be rectified by you in breast-fed babies, whereas all of them may be at work in bottle-fed babies.

Dyspepsia in Breast-fed Infants.

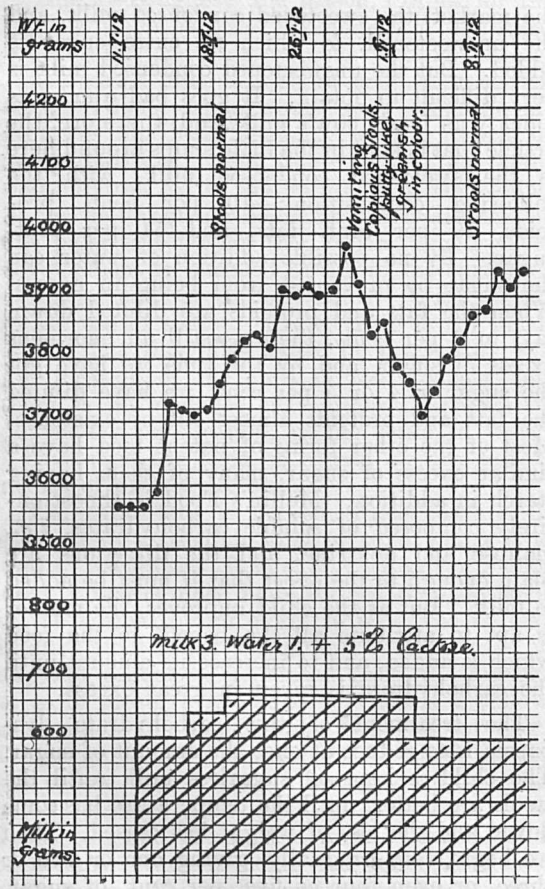
The common causes of dyspepsia in breast-fed babies are Nos. 1 and 5. You know how common it is for women to put their child to the breast whenever it cries. This feeding at hourly, or even half-hourly, periods often results in a mild attack of dyspepsia, and as the pain is no doubt relieved for the time by taking more warm milk into the stomach, the cause may persist for some time. The resulting attack of dyspepsia with diarrhœa and vomiting is unfortunately only too often taken as evidence that the mother's milk is not suitable or satisfying, and so the child is weaned. On the other hand, many infants will bring about their own recovery by the failure of appetite, which is produced by the dyspepsia. For a day or two the child takes the breast only in small amounts, and so adopts for itself the only treatment which is usually necessary for recovery. We can achieve the same effect by diminishing the number of feeds, curtailing the time of nursing, or by giving the child one or two tablespoonfuls of boiled water before each nursing. The second cause of dyspepsia in breast-fed infants is some coincident pyrexial disorder of which the diarrhœa and vomiting is only symptomatic. A short feverish cold, or a sharp attack of bronchitis is often accompanied by severe dyspepsia. Again, there is the danger that this may be interpreted as evidence that the mother's milk is unsuitable, and that weaning or supplementary bottle-feeds are desirable.

Where the infant is very young and the breast secretion has not yet become firmly established, the illness of the child may have the unhappy effect of causing the breast to become dry. It is the physiological stimulus of the healthy child sucking at the breast which calls the milk into existence, and if that physiological stimulus is removed, even for a short time, during the first weeks of lactation there is a great tendency for the breast to dry up. Such a result is usually assisted by the conduct of the mother, who, finding the child is getting thin, decides that the mother's milk is not sufficient, and forthwith gives some preparation in a bottle as well. As the bottle runs more easily than the breast, which is in process of drying up, the child feeds from the bottle in preference to taking the trouble of sucking at the breast, and so, as a result of a comparatively short-lived and transient infection, the complete weaning of the child is necessitated. The moral is that where dyspepsia is present in a breast-fed infant of less than three months, one should endeavour by the regular use of the breast-pump to keep the milk flowing easily from the breast, and should never think of weaning the child at this the most unsuitable moment possible. To

give supplementary feeding is usually to court disaster.

Dyspepsia in Artificially-fed Infants.

In artificially-fed children, the causes at work are much more numerous. There is, again, the danger of over-feeding. I have here the chart



Dyspepsia with diarrhœa and vomiting from over-feeding with a suitable mixture.

of a baby who is under my care in Clinical. The curve above is the curve of the weight taken daily. The verticals below represent the number of cubic centimetres of milk taken daily, to which you notice 5 per cent. of lactose has been added. You will see that at first the child put on weight rapidly, and that we were encouraged by his thriving condition to increase the amount of his milk. If you look at the chart you will see that this addition was not wise, because the child was putting on weight fast upon the smaller amount. Upon the larger amount, after a few days' interval, a very acute attack of dyspepsia set in, and in one week a great deal of the weight which had been gained in the previous three weeks was lost. We made haste to repair the damage, and diminished the amount to the original figure. The child rapidly improved, the diarrhœa and sickness ceased, the child became placid and happy again, and the weight curve went steadily up at a steep angle.

Secondly, as a cause of dyspepsia we have the use of an unsuitable mixture, and this is so important that I propose to leave its discussion to the last. Thirdly, there is the feeding with impure milk. By "impure" milk I mean milk which has already in the process of becoming sour undergone that formation of fatty acids which we have seen may take place in the child's stomach and intestines. No amount of boiling will render such milk a suitable diet for the child. Fourthly, there is the infection of the alimentary tract with bacteria, which ought to be prevented by proper attention to sterilisation; and, fifthly, there is the factor of coincident pyrexial disorder. As an example of this last, I may mention the case of a female child, fourteen months old, who was admitted into this hospital for diarrhœa and vomiting, which had gone on for about a week. The child's temperature was considerably raised—it was as high as 103°—and although it is possible for a case of severe alimentary intoxication to have so high a temperature, we seldom meet with it in a simple dyspepsia, and this child, though having such a high temperature, had not got those other signs of intoxication which are usually found accompanying the pyrexia. Therefore, I thought the diarrhœa and vomiting to be symptomatic of some other condition. On examination, the throat was a little red, and on the next day the diphtheritic micro-organism was cultivated. The child died from this diphtheria two days later, and at the post-mortem early broncho-pneumonia was found.

With our classification before us, much of the treatment of dyspepsia becomes obvious at once. We must secure pure milk. We must know where our milk comes from, that the dairy and farm are beyond reproach. Having got the milk, we have to destroy by Pasteurisation or sterilisation any bacteria which have formed in it, and, given diarrhœa and vomiting, we must be sufficiently skilful in the examination of the child to decide that he has not got diphtheria, pyelitis, tuberculosis, bronchitis, tonsillitis, influenza, or any of the other infective disorders to which these bottle-fed children are

so liable. If the dyspepsia is symptomatic of one of these infections, the cure of the infection will bring with it the cure of the diarrhœa and vomiting.

To prevent over-feeding, even with a suitable mixture, we must know accurately the amount which the child takes each day, and we must have the child weighed sufficiently often to assure ourselves that it is putting on weight steadily. The minimum amount of food which ensures a satisfactory increase in weight is the only safe measure of quantity.

If the child is not suffering from some accidental infection, if the milk is fresh and sterile, and the hygienic conditions good, and if the child is not over-fed, there remains as a cause for the disturbance only the unsuitability of the composition of the mixture.

Carbohydrate Dyspepsia.

When we come to make a comparison between breast milk and cow's milk, we find that in the case of the breast milk the proteids amount to 2 per cent., of which by far the larger amount is lactalbumin and the smaller amount casein. In the case of cow's milk, proteids amount to 4 per cent., of which casein forms 3·2 per cent. Fats are, roughly, about 3 or 4 per cent. in each, and very variable in quantity, varying, even, during the course of each breast-feeding, so that if we take the first specimen of milk given, the fats are poor, while in the last specimen of milk at the single feeding the fats are in large amount. Carbohydrates in mother's milk amount to 7 per cent.; in cow's milk they are about 4 per cent. From what I said at the beginning, it will be realised that the fatty acids, which are of such importance in stimulating peristalsis and in giving rise to intoxication, can only arise from the decomposition of sugars and of fats. From the proteids of the food they cannot arise. Practically speaking, we do not see children, among the Out-Patients, at any rate, who are suffering from the effects of over-feeding with fats. The milk which the mothers prepare for the children is very often skimmed milk, and the mothers constantly dilute it beyond what is reasonable. The over-feeding that one sees in Out-Patient practice here is almost entirely over-feeding with sugar. It is usual for the mother to add a large amount of cane sugar, which she looks upon only as a flavouring agent, and when ten, or twelve, or even twenty teaspoonfuls are added to the food of an infant weighing eight or ten pounds, this represents, weight for weight, an enormous amount of sugar.

Not only does the milk undergo the addition of large amounts of sugar, but in nearly all the patent foods which are on the market, the sugar is in large excess. We have, for instance, condensed milk. There are two preparations on the market, the sweetened condensed milk, and the unsweetened, to which no extra sugar is added. But the unsweetened condensed milk is very difficult to obtain. It goes bad almost as quickly as fresh cow's milk, and, therefore, the article that is kept in the little shops around here is the sweetened condensed milk, with the following composition:—10 per cent. proteids, 19 per cent. fats, and 54 per cent. sugar. By no possible addition of water can the sugar be prevented from being in excess. When the fats and proteids are diluted down, say, to 2 per cent., there is still an enormous excess of sugar, and by the time we have got the sugar to 4 or 5 per cent. we have diluted the fats and proteids almost out of existence. Most of the other forms of patent food have a similar excess of sugar, many of them having starch in addition. Mellin's Food is almost entirely composed of soluble carbohydrates, *i.e.*, maltose and dextrine, and the directions are plain enough to the effect that it must be added to milk. But as the child improves, the mother is apt to attribute all the benefit to the food which is added, and to increase its amount until the carbohydrate is given in great excess.

The treatment of this carbohydrate dyspepsia is to reduce at once the amount of sugar. The child is kept on sugarless milk until the stools are better, until the temperature has come down, and the loss of weight has ceased. Then we begin very gradually, giving one or two or three, or even four or five, per cent. of sugar, but when we find the curve begins to go up again at a reasonable rate we leave off increasing the amount of sugar, because if we go further we may produce diarrhœa. Sugars are especially helpful in sending up the weight, but they have the drawback of being very liable, in certain infants, to produce diarrhœa. It is quite true that these patent foods sometimes work marvels in making a child put on weight. The mothers tell us how the child was a miserable little skeleton, showing no sign of growth at all until it was put upon this or that patent food, which is practically a sugar, and from that time it added weight. That is all quite true. But very often—though each child differs from

another—what one finds is that after the child has seemed to do well for weeks or months, there comes a sudden attack of diarrhœa, and all that has been gained is lost in the course of a few days.

Whole Milk Feeding.

This also suggests the reason, I think, for the success, which is quite undoubted, of undiluted cow's milk, with or without sodium citrate. Whole cow's milk is a sugar-poor, proteid-rich form of diet. Upon whole cow's milk the infant has but little tendency to get attacks of acute diarrhœa. But there is also no doubt that children fed in this way tend to lag behind in the matter of development. They are smaller and paler and flabbier than others. Their whole development is retarded owing to the smallness of the amount of carbohydrates. With regard to the use of sodium citrate, there is not much doubt that this does assist in preventing the solidification of the curd in the stomach, but there is no evidence that either dyspepsia or alimentary intoxication, in the sense in which I have used the term, is caused by any abnormality of proteid digestion.

The child that is fed on whole cow's milk diet passes a peculiar kind of stool which it is well to recognise. It is a big, white, putty-like stool, which is much more formed than the stool of the normal infant ought to be. The normal infant's stool is not a definitely-formed mass at all, and cannot be separated from the napkin so as to preserve its shape. It forms a yellow stain upon the napkin like the yolk of egg. I pass round for comparison these three stools, the yellow, soft stool of a breast-fed infant, the green, watery, acid stool of an infant with dyspepsia, and the bulky, white, formed stool of a baby which is being fed upon undiluted cow's milk. This bulky white stool is not associated with any grave disturbances of digestion. It is typically the stool of the pale, rather flabby and rather undersized child which is reared upon cow's milk alone. By the addition of carbohydrate to the diet, the stools tend to become more frequent and more fluid; with excess of carbohydrate they become watery and green.

Dyspepsia as a Cause of Marasmus.

In practice among the children of the poor, when you have eliminated the possibilities of infection or decomposition of the milk, when you are satisfied that the diarrhœa is not symptomatic of some infection, and when the child is not being given excessive amounts, you will most often find that the cause of dyspepsia with vomiting and the passage of green, watery motions is due to carbohydrate excess. The danger of the attack is not only the temporary set-back to the growth and development of the child. There is also the danger of recurrence. Just as an attack of bronchitis leaves behind it an increased liability to a second or third attack, so an attack of dyspepsia leaves the child's digestion in less stable equilibrium. A percentage of sugar which was tolerated before an attack is capable of producing a relapse after the attack. Each attack leaves behind it a diminished carbohydrate tolerance until, after many attacks, the tolerance may actually fall below the amount necessary to keep the weight in equilibrium, and one of the forms of marasmus has become established. In short, such a child is only free from diarrhœa when it is suffering from inanition.

Of the treatment of these different forms of diarrhœa and vomiting I hope to speak in a later lecture.

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

"Refractions" in General Practice.

Dear Mr. Editor,—I am constantly being reminded by the comments of my medical friends that a large and lucrative portion of legitimate medical work is at present in the hands of the laity—I mean the opticians. It seems to me that a variety of circumstances prevent the present-day student from realising until it is too late what a useful and valuable asset in general practice is a working knowledge of "refractions."

It is my opinion that if a student did his appointment of ophthalmic dresser thoroughly, and in addition gave three months to practising "refractions," he would then have a good working knowledge of his subject, and could, by putting his skill at the disposal of his patients, add at least a couple of hundred pounds to his annual income in a few years. Such a consideration as this escapes the notice of students until that time when the acquisition of the knowledge is practically impossible.

I may be accused of bias in my views of the importance of ophthalmology, but any sources of income

cannot be allowed to lapse, as they are lapsing now, into the hands of mechanicians, when the profession is so pressed for means of obtaining adequate remuneration for its services.

I should be very interested to hear the views of Guy's men who are in practice and who either feel the want of ophthalmic knowledge or enjoy its amenities.—Yours sincerely,

ARTHUR W. ORMOND.

7, Devonshire Place, W.

Silence!

Dear Sir,—May I ask the favour of your interesting journal—the friend, I am sure, at all times of industrious students—to air what must surely constitute two grievances long harboured by a large section of our community. I refer to the absolute lack of quiet in both the library and the museum—the only two places in the Hospital which one can justly expect to be kept quiet for reading purposes. The former is the meeting place and thoroughfare for all and sundry; men pass through (though surely the quicker way would be through the Anatomy Theatre), spot a friend and stop to have a long and general yarn, to be followed literally by dozens of similar cheerful spirits. May I suggest that someone buy a long carpet to put down the aisle to deaden the noise of boots! Also, that the door at the Librarian's end be kept closed.

In the other ought-to-be-kept-quiet place, the museum, one seldom fails to see and *hear* a regular conclave of youths, and maidens scrubbing, dusting or preparing for classes with great noise and hilarity; ordinarily quiet labours which might surely be performed at times other than say, 11 to 1 and 2 to 4, when those of us "up-for-something" are trying to derive instruction from the excellent material set there for our benefit.

Yours truly,

QUI PACEM PETIT.

A Note concerning Heberden's Nodes.

Dear Sir,—I think that there is a very general tendency to regard the occurrence of Heberden's nodes at the bases of the terminal phalanges of the fingers as evidence that the patient is suffering from actual or potential osteo-arthritis. If, however, there is one thing upon which Heberden insisted more than another it is that these nodes have no special connection with arthritis, and how the exact converse has come to be taught is not clear. On page 130 of his work, "Gulielmi Heberden: Commentarii de Morborum Historia et Curatione," will be found his own notes upon the condition as follows:—

"*Cap. 28. De Nodis Digitorum.*—Nunquam rite intellexi naturam tumorum, qui interdum nascuntur, ad pisi magnitudinem, prope tertium digitorum articulum. Nihil certe illis commune est cum arthritide; quoniam in multis reperiuntur, quibus morbus ille est incognitus. Per hominis ætatem manent; vacant omni dolore, neque spectant ad exulcerationem. Proinde deformitas major est, quam incommodum; quanquam motus digitorum aliquantulum impeditur."—

Yours truly, HERBERT FRENCH.

Radiography in Intestinal Stasis.

Dear Sir,—In the admirable account given in the Gazette for February 17th, of "The Pre- and Post-operative Nursing of Intestinal Stasis," attention is drawn to the necessity of admitting patients at least a week before the operation to enable the X-ray examinations to be carried out.

I should like to add some practical details, for these X-ray examinations for intestinal stasis have become a prominent feature of the work of my department.

Many of the manifestations of intestinal stasis pass off temporarily while the patient is in bed, except in the most severe cases. For this reason patients should be allowed up, and encouraged to walk in the park until the X-ray examinations are completed. Many ileal kinks escape detection because the patient, after taking his six ounces of carbonate of bismuth at 6 a.m. is kept in bed until he is brought down for the first X-ray examination at 2 or 3 p.m. By this time the whole of the bismuth has often passed through the ileum, even though at the subsequent examination a well-defined ileal kink is found.

This applies even more forcibly to the case of the duodenum. All patients sent for X-ray examination with the diagnosis "duodenal ulcer" should be allowed up until the X-ray examinations have been made; moreover, they should be sent down as soon as possible after admission, and before they have been put on special diet. It is far easier to obtain positive evidence of duodeno-jejunal kinking in out-patients when they are at their worst. After two or three weeks in bed on a milk diet, the kinking has passed off, temporarily, in most cases. All duodenal cases should be subjected to a complete X-ray examination of the alimentary tract, for I find that duodenal distension (from kinking) is rarely found without other evidence of stasis in the ileum and in the large intestine.

Another practical point is to avoid giving patients purgative drugs or enemata before or during the X-ray examinations. No aperient should be given within forty-eight hours before the time of taking the bismuth.

In my private consultations I am accustomed to give the bismuth meal between 9 and 10.30 a.m. The œsophagus, stomach, and duodenum are examined at the first visit. The ileo-cæcal region is then ready for examination between 5 and 7 p.m. in slight cases, but much later (9—11 p.m.) in well-marked stasis. With the present arrangement at Guy's it is very difficult to obtain a complete record of the progress of a bismuth meal through a patient. The solution of the difficulty is to be found in the appointment of a qualified Clinical Assistant, resident in or near the Hospital, who will make examinations in the Medical Radiography Department in the morning and again in the evening.

There is great scope for important investigation in my Department, and I feel sure there are keen workers available who will help the Department to do its share in upholding the reputation of Guy's.

ALFRED C. JORDAN, M.D.

11, Bentinck, Street, W., Feb. 21st, 1912.

Guy's Hospital Musical Society.

This Society held their Concert on February 20th, in the Physiological Theatre. We can only hope that the enthusiasm of the audience will be the measure of the support which the Society will receive this year.

If we had forgiven Mr. Carey for not singing himself, we should congratulate him very warmly upon the admirable result of his exertions.

Where everything was so good it is difficult to single out the individual performances, but nobody will quarrel with us when we say that the chorus was always good and improved as the evening went on, that Mr. Depree distinguished himself both in his solos and accompaniments, and that both Nurse Drower's and Nurse Oliver's songs deserved the appreciation they received. The quartet was exceedingly popular.

Perhaps the best of the evening was kept till the end. We have never heard Nurse Miller sing better, and the Nursery Rhymes were perfectly charming; the chorus seemed to enjoy them as much as the audience, and that is saying a great deal. We should like to hear "T'other little tune" again very soon. If we may make any criticism, we would suggest that the addition of one or two more tenors would be a great improvement, and express the hope that the Society will soon be reinforced in this respect.

We are asked to observe that the Concert was more successful financially than has been the case for a long time.

Finally, we must congratulate the Society very heartily, and thank it for a particularly pleasant evening.

We are asked to announce that, in view of Easter celebrations, the Musical Society will give selections from Bach's Passion Music. Will all those interested kindly do their best to come to practices at 5 and 8 p.m. on Fridays.

Notice.

Students' Club.

The annual general meeting of this Club will be held on March 4th, 1912, at 4 p.m., in the Anatomical Theatre. Dr. Hale White, president, will take the chair.

The agenda of the meeting may be seen posted in the club rooms.

T. B. LAYTON, *Hon. Sec.*

Medicine and Psychology.

Paper read before the Physical Society on January 20th by R. A. Fawcus.

Before considering the light which psychology may throw on medicine, or which medicine and physiology may throw on psychology, it is necessary to reflect first upon the relationship of psychical events and material phenomena. For, unless it is permissible to assume that psychical changes may be the cause of physical effects, any speculation as to the part played in disease by mental disturbance will be entirely divorced from any practical bearing.

Let us, then, consider in a very elementary fashion the function of consciousness in order to determine whether or no we could be justified in attributing to certain psychical changes the causation of various physical maladies. Now the view held by the ordinary man is, no doubt, that the mind—by which he does not mean the brain—acts upon the body, and that the body acts upon the mind, and that there is nothing to choose between the two in their character as causative agents. And he will find it as easy to give you instances of the one sequence of events as of the other.

To the physiologist, however, the matter is not so simple. He is more impressed than the ordinary man with the dependence of mental events upon nervous mechanism. "No psychosis without neurosis" is for him an obvious commonplace. If this be true—and no doubt it is—then, however intricate may be the by-paths of consciousness, the neural mechanism to which they correspond must be of a similar intricacy. But now, in such obvious instances as experiments with a decapitated frog, we see nervous mechanism, apparently unconscious, performing actions which may fairly be described as intelligent. If this be so, then it is hardly paradoxical to conclude that in those actions in which consciousness plays a part, that still more complicated nervous mechanism, which we must admit to be its invariable associate, is, in reality, the sole cause of whatever intelligent actions may appear. If this be true, then the whole of consciousness may be described as an "epiphenomenon"—a something which supervenes upon the performance of certain reflexes, but which is in no way related to them as cause to effect. Every action which we imagine to be voluntary will be just as involuntary as the plantar reflex.

Now, if this theory is true—and I believe that it is held by some physiologists—there could clearly be no relation between medicine and psychology at all, or, at any rate, none of any practical importance; and it is on this account that I feel compelled to occupy your time for a few moments in examining it. To the ordinary man this theory—sufficiently paradoxical in itself—is at once discredited by a surprising inference which can be drawn from it. Take a series of changes in the cerebral cortex—each will have attaching to it, in relation of effect to cause, a reaction in consciousness. Each effect in consciousness will depend on a particular neural change, and, therefore, while on the neural side the process may be continuous, on the mental side each effect will be discrete; so conscious processes will not only be unable to cause material effects, but also to cause each other.

Thus, while to the ordinary man the consciousness of good news is the cause of joy, or the comprehension of the premises the cause of the acceptance of the conclusion, to the upholder of this theory these psychic phenomena, being each the correlative of a particular nerve state, will be merely juxtaposed and in no causal relation to each other at all, a result so paradoxical as to be almost absurd.

One other argument against this view will be sufficient. It is admittedly a fact that those actions which are advantageous to the individual, or to the species, are accompanied by pleasurable sensations, while those which are disadvantageous are also, as a rule, disagreeable. Such a coincidence is easily to be explained in accordance with the principles of evolution. A normal baby, for example, puts its finger into the flame of a candle, and is satisfied once and for all of the injudiciousness of his conduct by the pain arising from the burn, while the baby who was unswayed by such considerations would stand a poor chance of attaining maturity. But now, if we are to hold the doctrine of automatism, this coincidence becomes at once purposeless and inexplicable. If conscious processes, such as sensations, have no power to produce or modify material actions, then the pain of the burn is in no way at all the cause of the baby's future abstention from such hazardous enterprises, and, in short, the connection between any disadvantageous action and the ensuing painful sensation becomes an inexplicable coincidence of no practical importance. And this, I think, is a conclusion which can commend itself to nobody who considers the question with an unbiased mind.

We have, then, arrived at the position that psychological processes can, and, in fact, do, influence material processes, and may now consider in what branch of medicine such an influence is likely to make itself evident. Clearly it is in the field of functional disorders, and it is in regard to these that I propose to occupy your attention for the remainder of this paper.

None of the facts, nor their explanation, are in any sense original, but just as my previous remarks have been taken from Mr. William James, so the rest of the paper is largely indebted to the works of M. Pierre Janet. But, as steal I must, let me, at any rate, steal in the light of day.

In the first place, it may be well to consider in some detail one of the more salient characteristics presented by sufferers from functional disorders, namely, anæsthesia.

Now the anæsthesias which hystericals present may be divided into three classes—the systematised, the localised, and the general anæsthesias.

The systematised anæsthesias do not affect all the sensations which would normally arise from the excitation of a particular sense organ or region of the body, but only a particular group of sensations forming a system, while all the other phenomena which stimulate this particular sense provoke their normal reaction in consciousness. Such an anæsthesia is well illustrated by effects produced by appropriate suggestion during hypnotic trances. The subject will see everything in the room except a particular person, who, it is suggested, is invisible to him. The same phenomenon is illustrated by somnambulists who can only perceive a certain system of objects related to their dream, but are insensible to all other impressions. So, too, in hysterical anæsthesia we have instances of the same sort; a girl, for example, with complete anæsthesia of both hands, was able to recognise by contact articles such as her earrings and hair pins, while any other object placed in her hands was entirely unfelt. Now, in all these cases the sensibility or insensibility of the patients appears to be determined, not by any physical modification of the senses, but in accordance with certain ideas of the patient which determine which out of a number of sensations shall produce their appropriate reaction in consciousness.

Let us now consider the localised anæsthesias. This is the name given to a complete anæsthesia established in some particular region of the body. A good instance of this is the condition of hemi-anæsthesia in which the insensibility is rigidly limited to one half of the body. Other instances are those conditions in which the anæsthesias of the limbs are limited by lines drawn perpendicularly to the long axis of the limb, or in which a whole limb is anæsthetic with the exception of small areas of sensibility surrounding the articulations. Now, such anæsthesias do not correspond with regions anatomically distinct. For example, it is not the region supplied by the median or radial nerve which is anæsthetic, but it is the hand or wrist. Nor is it necessarily a region with a particular vascular supply, as some have supposed. The anæsthesia is not anatomical in its distribution, but rather physiological; and physiological, moreover, as Janet says, only in a crude and popular sense. The hysterical amaurotic, for example, is insensible not only as regards her retina, but also on her conjunctiva, or even on her eyelids. She has "lost her eye" not only in the physiological sense, but also in the popular sense, namely, all that fills the orbit. It would seem, then, that in this class of anæsthesia also it is not so much a physical modification of the sensory apparatus which determines the localisation of the insensibility, but rather an idea entertained by the patient.

Lastly, occasionally we have a generalised anæsthesia in which the insensibility may invade the whole surface of the body. It is noteworthy that in such cases a widespread anæsthesia may prevail in the total absence of the subjective or objective symptoms which would accompany an organic anæsthesia. Various vascular and secretory disturbances have indeed been described in connection with functional anæsthesias, but the general rule would appear to be that the latter are accompanied by physiological changes. Moreover, the reflexes, as a general rule, remain unaltered. The pupil, for instance, will dilate if you prick an anæsthetic area of skin, though the patient will experience no painful sensation.

Moreover, the hysterical anæsthesias do not prevent the patients from protecting themselves against the various accidents to which sufferers from organic disorders are liable. It is very rare, for example, for a patient with a functional anæsthesia of the hands to suffer from the burns and other injuries to which a sufferer from syringomyelia is liable.

Lastly, the patients themselves are frequently unaware of their anæsthesia, and are surprised when it is pointed out to them, although a similar anæsthesia of organic origin would cause them the most extreme inconvenience. M. Jules Janet relates the case of a girl who came complaining of anæsthesia over part of the right hand following an injury to one of the

branches of the median nerve. On examination it was found that the whole of the patient's left side was anæsthetic, though the patient herself had never observed the fact before it was pointed out to her.

With regard to the whole subject, then, of hysterical anæsthesia, we see that it presents remarkable characteristics of its own. Thus, in the first place, it seems to depend more upon the ideas of the patient than upon the anatomical construction of the parts involved, and, secondly, it does not produce either the subjective or objective symptoms which are characteristic of an organic anæsthesia.

Before proceeding to any psychological explanation there are two other characteristics of functional anæsthesias which must be briefly mentioned, namely, their mobility and their contradictory character. To take the mobility first, many influences serve to modify or abolish these anæsthesias. They apparently disappear during sleep, though the point is naturally difficult to determine. They may disappear during drunkenness or when the patients are under the influence of drugs, or they may be modified or even abolished by suggestion. But these anæsthesias are not only mobile, they are also contradictory. A good example of this is furnished by the following experiment. An apparatus is constructed in which by an ingenious arrangement of prisms the object which appears on the left is seen by the right eye, while that which appears on the right is seen by the left eye. Now, if a patient suffering from hysterical amaurosis of the left eye is made to look through this apparatus, he will see only one object, but that will be the one on the right.

Another curious instance of the contradictory nature of these anæsthesias may apparently sometimes be elicited from simple-minded patients suffering from hemianæsthesia. They are told to say "yes" when they feel a touch and "no" when they feel nothing. They are quite likely apparently to say "yes" whenever they are touched on the one side and "no" whenever they are touched on the other.

Let us now consider what explanation will include these various phenomena of hysterical anæsthesia. In the first place, can we discover any analogous phenomenon in the normal individual? Now, under certain conditions of inattention or preoccupation we do find apparently similar anæsthesias of an equally contradictory description, though of a much slighter and more transient character. Some people, for instance, will seek everywhere for an umbrella which all the time they are holding tightly clenched in their right hand. Noting this analogy *en passant*, let us for a moment consider the nature of sensation. Sensations may be defined as the primitive elements of consciousness; they are, so to speak, the psychological atoms, and presumably each afferent impulse is correlated to a simple sensory impression. But at each moment of the day hundreds of such afferent impulses are pouring into the brain, and certainly they do not all provoke a reaction in consciousness. At a given moment we are capable of attending to but few sensations. The span of consciousness—by which I mean the sum total of sensations present in consciousness at a given time—may well vary largely from one mind to another, but certainly is limited in all. Out of a very large number of impressions present at a given moment, some force themselves into consciousness, some we select, and with them fill the span of consciousness. The rest we ignore. What happens to these neglected impressions whose reality we must realize? They are psychological phenomena which do not rise to the threshold of consciousness, and may, therefore, well be called "subconscious phenomena." We may find grounds for believing that some synthesis of these "subconscious phenomena" takes place, but to call such a synthesis a subconscious self is objectionable for the reason that by the self one must surely understand that determining principle which decides which out of the total number of incoming sensations shall rise to the level of consciousness.

The span of consciousness no doubt varies largely from one individual to another, and it would appear that just as it is a characteristic hysterical defect to have a contracted field of vision, so on the psychological side it would appear that they tend to have a contracted span of consciousness. They can make use of fewer impressions than can the normal individual, and a larger and larger part of the total number of incoming impressions tends to be relegated to the field of subconsciousness. As a rule, the more important sensations will tend to be preserved. Hysterical amaurosis in both eyes is very rare, so is hysterical deafness. We tend, then, towards the conclusion that hysterical anæsthesias depend upon a certain disproportion between subconscious and conscious phenomena, and we may well look for an explanation of functional disorders to some usurpation by the subconscious side of mental life of the part played in the ordinary individual by conscious activity. This is of some interest, as there is clearly a close connection between functional disorder and suggestion, and the latter seems in some way to be connected with the subconscious side of psychological phenomena.

We have seen that two conditions must be realized for a sensation to produce its effect in consciousness. In the first place, an afferent impulse produces its psychological effect; in the second, this psychological effect which we may take as the elementary unit of mental life is seized upon by the ego—or synthesised into the personality—or, to use the same words as before, enters into the span of consciousness. Now it appears to be this latter part of the process which is deficient in hystericals; the span of consciousness is contracted and but few impulses can be received into it. The subconscious side of mental life, therefore, begins to play a disproportionate part in the life of the individual. Now, if such be the case, this would appear to be the type of mind in which suggestion would be most likely to be effective. It is, I think, particularly difficult to get any clear conception of the exact meaning of suggestion; perhaps the most satisfactory way of arriving at any conception of it will be by trying to answer two questions. In the first place, why is it that the normal individual is not suggestible in ordinary moments?; secondly, how is it that suggestion produces any effect in the hysterical? To take the first question first: Suppose a suggestion of an improbable character, say, that one hand is anæsthetic, is made to any one of you, clearly the reason that you would reject it is that you can correlate the suggestion with other impressions and ideas and find that it is incompatible with them. We may, therefore, say that one necessary condition for the success of suggestion is some diminution in this power of synthesising a new idea with pre-existing ones. This, however, will not explain how it is that suggestion is capable of producing physical effects;

for this to occur it would appear to be necessary that the subconscious side of mental life, which normally appears to be dormant, should to some extent have acquired the power of playing the rôle which is normally played by conscious activity. We see, then, that there are two essentials for suggestion: diminution in the power of mental synthesis, and undue increase in the subconscious side of mental activity. Now, suggestions are of two kinds: those which one can make on the patient, and those which he makes on himself; though, of course, both of them equally come from without, in the first instance. It is the latter which, for the moment, are of particular relevance. We can, if we like, speak of them as "auto suggestions," though the word is rather barbarous. The result of these suggestions is "fixed ideas." These may be of two kinds, that is, they may be either "conscious" or "subconscious" mental phenomena. The peculiarity of fixed ideas in the hysterical is that they appear to be largely subconscious. Now it is, naturally enough, difficult to demonstrate the existence of fixed ideas in patients who are themselves unconscious of them, but there are several possible methods of examination. Such ideas may, for example, develop themselves during hysterical attacks, or in dreams, or in either natural or induced somnambulism. Pierre Janet relates the case of a patient who suffered from a functional anæsthesia of the left side of the face combined with amaurosis of the left eye. The patient herself could not remember a time when she could see with this eye, but when she was in a state of induced somnambulism it was discovered that the blindness dated from a trifling incident in childhood, when the patient had had to sleep with a child whose face was disfigured with mumps on the left side. The patient had conceived a great horror of this condition, and apparently, by some curious process of thought had suggested to herself her own amaurosis and anæsthesia. The origin of the fixed idea being thus elucidated, it was entirely removed by appropriate suggestion. It would appear probable that in the majority of cases both the localisation and nature of the various functional disorders depend originally on some such process of suggestion, with the ensuing fixed subconscious idea.

Before concluding, it may be well to anticipate a few of the more obvious criticisms which suggest themselves. It has been argued that the explanation of functional anæsthesia is to be found in some retraction of the span of consciousness or in some disability to make use of more than a limited number of incoming sensations, and that the localisation of these anæsthesias is due to self-suggestion, and a similar explanation would, had time permitted, have been given of the majority of functional disabilities. Very well, it may be said, but how are functional hyperæsthesias to be accounted for? If the anæsthesias show a limited field of consciousness, surely the hyperæsthesias would suggest an enlarged one! The answer would appear to be that the hyperæsthesia is not the opposite of anæsthesia in the sense of being an increase in the discrimination of the senses, but merely an increased sensibility to pain, and this increased sensibility would appear to depend just like the anæsthesias, upon a fixed idea of the patient, and I would further argue that unless there is some defect in the activity of the normal mental processes, such a fixed idea would be unlikely to produce a physical effect.

The case of an engine-driver, for instance, is described who, after severe injuries to the abdomen, enjoyed good health for five years, with the exception that whenever he was drunk, his thoughts always returned to his accident, and he would complain of pain in the abdomen. At the end of five years he received a severe mental shock, and was re-admitted to hospital with considerable hyperæsthesia of the abdominal wall. This condition would clearly appear to have depended upon a fixed idea which had remained ineffective in moments of mental stability, but which had been able to make itself felt when the mental balance was in any way disturbed.

In conclusion, gentlemen, you may justly accuse this paper of considerable vagueness. In extenuation I can only say that psychology is still a study of some obscurity; even the correct way to spell it is, if the secretary will forgive my saying so, rather obscure, and that part of it which deals with the relation of conscious and subconscious phenomena is necessarily involved in an obscurity of unexampled opacity.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

A Dictionary of Medical Diagnosis. By H. L. McKisack, M.D. (Baillière, Tindall & Cox.) Price 10s. 6d. net.

This is the second edition of this book and it is well worthy of such popularity. It deals in alphabetical order with the various signs, symptoms, and terms met with in the study of disease from the medical standpoint, and thus serves as a means of ready reference for the practitioner who wishes to revise his elementary knowledge, or to see at a glance the various possibilities which a particular sign or symptom may indicate. The technique of physical examination is clearly described, and there are good accounts of the Wassermann reaction, abdominal radiography, and other specialised diagnostic methods. The illustrations are effective and the tables eminently practical. Criticism must, however, be directed against the slight importance attached to the "ankle-jerk" as a diagnostic sign, and to the statement that it is "sometimes" seen in healthy subjects. The work as a whole is particularly suitable for those engaged in practice, but is not without value for the senior unqualified man.

Minor Surgery. By L. A. Bidwell, F.R.C.S. (University of London Press, published by Hodder & Stoughton and Henry Frowde.) Price 6s. net.

A useful handbook for dressers, house-surgeons, and private practitioners. The descriptions given of the various details of surgical technique are clear and concise, and the methods suggested are practical. The treatment of dislocations is purposely omitted, but otherwise the ground covered is extensive. Indeed, some of the operations described are beyond the bounds of minor surgery as ordinarily understood. On the whole, the illustrations are satisfactory, but it is difficult to see what useful purpose is served by introducing figures of such familiar articles as sinus forceps, Spencer-Wells forceps, or an ordinary dressing

case. This type of unnecessary illustration appears with such painful regularity in surgical books that we imagine there must be some kind of fetish worship associated with them in the minds of the publishers.

Materia Medica. By W. Hale White, M.D. 12th Edition. (J. & A. Churchill.) Price 6s. net.

Guy's men may well feel proud of the publication of a twelfth edition of this well-known work. Published originally in 1892, it has come to be a classic amongst medical text-books, and is indispensable to all practitioners and students. It has now passed almost beyond the pale of criticism, and this latest edition is, like its predecessors, compact, reliable, and comprehensive. It has been brought thoroughly up to date, and several new pages of new matter have been added. Knowing Dr. Hale White's views, however, we must confess to some surprise that he does not in this book lay more stress upon the dangers attending the use of Veronal as a hypnotic.

AIDS TO STUDENTS.

Aids to Histology. By A. Goodhall, M.D.

Aids to Practical Pharmacy. 2nd Edition. By A. Campbell Stark, M.B., B.S.

Aids to Ophthalmology. 5th Edition. By N. Bishop Harman, F.R.C.S. (Baillière, Tindall & Cox.) Each 2s. 6d. net.

These various "Aids" are entirely suitable for the purpose they profess to serve, and present their subject-matter in lucid and concise terms. That dealing with Histology is furnished with excellent sketch-diagrams which should serve as a model of clearness to students. Practical Pharmacy is dealt with thoroughly and well, whilst the volume on Ophthalmology is far from being the mere cram book it might appear at first sight. Mr. Bishop Harman has compiled a really valuable little book on his subject, and his manner of exposition calls for nothing but praise. Sixty new illustrations have been added to this 5th edition, and the whole book has been carefully revised.

Sport.

Rugby Football.

GUY'S v. LONDON WELSH.

Notwithstanding the counter attraction at Twickenham there was an excellent gate to see this match at Honor Oak Park on Saturday, February 10th.

Unfortunately, the Welsh secretary had so many disappointments in making up his team that they could only muster 11 men. Tooth, Hunôt, Gibb, and another very kindly offered their services, and thus, as far as numbers went, the respective teams fielded equally. Guy's had Kennedy, Stokes, and Glendining away.

The start was delayed till some time after 3 o'clock The visitors led off rather strongly, their forwards in particular doing well. Guy's were rather handicapped in the tight work, as the referee seemed very determined to stop anything like "foot up." The decisions with monotonous regularity went against the Hospital, so it was a little difficult to get going. After Williams, the Welsh stand-off half, had almost crossed the Guy's line, Leigh took a penalty kick awarded the London Welsh for the inevitable "foot up," and landed a good goal. Guy's reply to this came in the shape of a try by Anthony, who got over unopposed. A second try was also soon forthcoming, Moberley being the actual scorer, but the whole side worked well for it. Anthony took both kicks, but was unsuccessful, though it should be mentioned that the last kick hit the upright.

Following the interval, Williams had the ill luck to dislocate a thumb, and had to leave the field for a while to have it attended to. While he was away Medlock got a good single-handed try. Guy's were at this period of the game playing very well together indeed, especially the halves and centres. The forwards were also showing more devil, and some of their rushes were excellently executed. A little more foot work would have been serviceable. Before the end three more tries were forthcoming, Anthony, Medlock, and Eccles being the scorers. Only one try was converted, Medlock's try after the interval being majorised by Anthony. Final score: Guy's, 1 goal 5 tries (20 points); London Welsh, 1 penalty (3 points). Team:—

GUY'S.—H. Millett (goal); J. D. Eccles, G. B. Pritchard, A. H. Harkness, A. F. Rook (three-quarters); J. E. Davies, C. H. Medlock (halves); C. S. L. Roberts, W. S. Stranack, A. V. Moberley, H. Daw, O. Parry-Jones, A. L. Liebson, H. Anthony, H. Whitworth (forwards).

REMARKS.—The team are shaping remarkably well, and if all who are likely to be called upon for Cup Tie play keep fit and in the best possible condition, all should be well with Guy's. It is very satisfactory to notice the fine finish the forwards always put up, although a little more energy during the earlier portion of the game would be also useful. The halves are a really good pair. Medlock has seldom played better than in the last few matches. The three-quarters, where Stokes' pace will be very welcome again, are showing good form, while the displays of Millett give the whole side confidence as regards the safety of the last line of defence.

GUY'S v. OLD LEYSIANS.

This match, played at Wandsworth on February 17th, had been very much looked forward to, as the Old Boys had played through the season without sustaining a single reverse. Guy's tried Millett in the three-quarter line, and it may be stated at once he was a great success in that position. The way he worked through for the Hospital's second try was one of the features of the match. J. P. Jones was the full back, a position he filled as ably as in the past he has filled the positions of half and three-quarter. We have not yet had the pleasure of seeing this versatile player as a forward.

The ground was in excellent condition. With a new ball to play with, and no mud about, the play took place under a very different aspect from that to which Guy's have lately been used. The Old Boys pressed at first, but they played into the Hospital's hands by maintaining their seven pack formation.

It was about 20 minutes after the kick-off before the first try came, the outcome of a nice opening on the part of Medlock, Harkness, and Pritchard, Stokes receiving with only Pinkham to pass. Pinkham was in great form, but Stokes preferred to kick rather than swerve, and, regaining the ball, he touched for a try a little too wide to goal. This was the score when ends were changed.

Soon after the resumption Millett scored his try, dashing through quite half a dozen players, Stokes goaling with a wonderful kick from touch almost. All this time the Old Leysians were not idle. Much of their work was excellent, but Guy's held them well forward, and this was the crux of the position. Soon Anthony put on an unconverted try. Then a very fine run by Walker, who got right to the posts for Mellor to goal, put the scores at 11 points to 5. The Old Boys tried desperately hard, but Guy's were the next to score. An opening beautifully created by Medlock, carried on by Pritchard, enabled Stokes to score again, the final score reading: Guy's 1 goal 3 tries (14 points); Old Leysians, 1 goal (5 points). Team—

GUY'S.—J. P. Jones (goal); H. Millett, A. H. Harkness, G. B. Pritchard, A. L. Stokes (three-quarters); J. E. Davies, C. H. Medlock (halves); C. S. L. Roberts, W. S. Stranack, R. S. Kennedy, A. V. Moberley, H. Daw, A. L. Liebson, H. Anthony, L. Muir-Smith (forwards).

REMARKS.—The whole side played remarkably well, but special praise should go to the brilliant work on Moberley's part. Harkness showed real pluck in continuing after he got a nasty knock on the knee. Fitness, maintained by constant training, will do much towards keeping the "Cup" in its present position in the Smoking Room.

GUY'S v. BART.'S.

INTER-HOSPITAL CUP.—SEMI FINAL ROUND.

THE ground was in perfect condition for this tie at Richmond last Tuesday. But a strong oblique wind blew hard across the ground away from the grand stand. The teams turned out with commendable promptitude and play commenced at once. The sides were equally matched forward, but Guy's had the advantage in the loose, and their superiority in this direction enabled them to get down to the Bart.'s 25. The scrums saw the ball come out about as many times to one side as the other. Davies was working splendidly, but Medlock has handled more accurately in previous matches. Mudge and Fiddian were the two best Bart.'s forwards, and the latter headed a rush which was only stopped by Lee going down very pluckily. Roberts and Anthony headed a rush back, and a good kick by Harkness again took Guy's to the Bart.'s 25, where smart passing by the threequarters, and a determined dive for the line by Millett, scored the first try. Bart.'s tried their utmost to get going, it was no fault of Williams they didn't score. For a time Guy's were hard put to it to defend. But both centres, Lee and Millett, were tackling beautifully, and Bart.'s were forced back. The game proceeded at a fast pace. But there was a tremendous amount of whistle. Medlock dribbled over very neatly, but Just reached the ball first. Then Davies and Medlock, with Harkness coming in cleverly, cleared the way for Millett. Millett was tackled by Just and Hodson, but he got a try. Stokes kicked well for goal, but the ball fell short.

Just after half-time Moberley got damaged, but he very pluckily took the field again after a short rest. Play settled near Bart.'s 25, where scrum after scrum ensued. No one could get going without being whistled back. Then the ball was slung out, Stokes looked a certain scorer, but for some extraordinary reason he kicked ahead and ran after the ball only to see Hodson clear back to half-way. A dash for the line and Stokes must have scored. Bart.'s now warmed to their work, but their was very little open work except on the part of Pocock and Williams. Richards invariably held too long. Bower and Just, on either wing, got nothing to do. A determined rush by Guy's forwards led to Guy's next score, Roberts doing the needful. Again the kick failed. Still Bart.'s tried to pull the game round. Fiddian, Evans and Williams did their very utmost. The first-named played splendidly, but nothing came off for them. Either the final pass was forward or Lee was always in the right place. A race round of Guy's passing just before the end looked as if it must be successful. Harkness tried his best, but Millett was shadowed by Just. Harkness had not quite enough pace to cut through on his own. The end came with Bart.'s pressing. Guy's, 3 tries (9 points); Bart.'s, Nil. Team:—

GUY'S.—H. Lee (goal); A. L. Stokes, G. B. Pritchard, A. H. Harkness (threequarters); C. H. Medlock, J. G. Davies (halves); C. S. L. Roberts, W. S. Stranack, R. S. Kennedy, A. V. Moberley, H. Anthony, V. Glendining, H. Daw, A. L. Liebson (forwards).

REMARKS.—Cup Ties are such strenuous work it is difficult to criticise. But there was much splendid play and a little to find fault with. Tackling is so keen it is very difficult to keep the game open. Hence, when the forwards were getting away once or twice, it seemed a pity to call on them to heel, especially when the position was a defensive one. The forwards to a man were good, the tackling the best they have yet shown. Davies played a great game. Just a little wild in his passing sometimes. Millett a great success. Harkness and Pritchard played as soundly and tackled as manfully as one expected they would. Stokes kept Bower well in hand; but he should run with all his might for that line instead of kicking quite so often. Lee was as safe and reliable as ever. Medlock was as good as he was allowed to be; he was marked in deadly fashion, but did much clever work.

Marriages.

PEATY—EVANS.—On February 10th, by Rev. A. Griffiths, at St. John's, Cardiff, Archie E. F. Peaty, L.D.S. Eng. (57, Newport Road), to Eleanor Mary Evans (Syr David's Avenue), both of Cardiff.

BODKIN—DUDDING.—On February 15th, in the Lady Chapel, Southwark Cathedral, by the Rev. W. D. Bodkin, Vicar of Ringwood, and the Rev. C. Patrick Hankey, Curate of S. Augustine's, Kilburn, Arthur Malcolm Bodkin, of King's College, Cambridge, and Guy's Hospital, son of A. A. Bodkin, Esq., of 3, Rawlinson Road, Oxford, and formerly of Rondebosch, Cape Town, to Marian Ethel, second daughter of the late F. W. and Mrs. Dudding, of Baylham House, Ipswich.

Death.

McGAVIN.—On the 22nd February, on board H.M.S. *Conway*, Cadet John Beauchamp McGavin, aged 13 years, only son of Mr. and Mrs. McGavin, of 32, Weymouth Street, W.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 619.] MARCH 16, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	101–104
Appointments	104
Notice	104
Common Fallacies in the X-ray Diagnosis of Disorders of the Alimentary Canal. By Arthur F. Hertz, M.D.	105–106
R. I. P.	107
Change of Address	107
Papers by Guy's Men	107
Cirrhosis of the Liver. Clinical Lecture by W. Hale White	108–113
Some Recent Advances in Cancer Research. By R. A. Chisolm, M.A., M.D., M.R.C.P.	113–117
Correspondence	117–119
Reviews, etc.	119
Sport	119–120

Passim.

WE deeply regret to announce the death of W. T. Clarke, which took place at his home on Monday last. Mr. Clarke was educated at Bristol Grammar School, and entered Guy's in October, 1904, taking both the medical and dental courses. He did not complete his dental studies, but qualified M.R.C.S., L.R.C.P. in April, 1910. He held the post of Clinical Assistant, and was A.H.S. to Mr. Fagge. Shortly after being appointed O.P.O. he was compelled to resign owing to illness, but to the general satisfaction, was reappointed O.P.O. in October last. In January he was appointed House Physician to Dr. Pitt, which post he held until seized with his fatal illness. Tom Clarke was one of the best all-round sportsman, in the proper sense of the term, that Guy's has produced, and his activities included cricket, swimming, hockey and football, while he was one of those men, only too rare, whose friends included his every acquaintance. A thoroughly honest, capable man, he would, undoubtedly, have been successful in his profession, and his loss will be mourned as the loss of a highly esteemed and well-loved friend by all who met him at Guy's. Death at the age of twenty-eight is always a tragedy, and in case of a fine all-round athlete, becomes more so. To those of us who knew him his memory will long be kept green as that of a man who lived and died a thorough sportsman, and a true friend.

WE also regret to announce the death of Mrs. Clement Lucas, which occurred last Saturday from cerebral hæmorrhage. Her connection with Guy's Hospital was a triple one: one of her relatives, Mary Pelly, married Benjamin Harrison, the despotic Treasurer of Guy's Hospital, who was very generally known as "King" Harrison, and her father was a distinguished Guy's man, being one of those present in the Chapel in 1841, when Sir Astley Cooper was buried there. Mr. Lucas's loss is a great one, and we would extend to him the sincere sympathy of all Guy's men who know him either personally or by his reputation.

IN our correspondence columns will be found a letter from the Dean of the Dental School, giving particulars of the appeal which is being made, especially to old students of the Dental School, for the provision of new chairs in the Conservation Room. The appeal was first made at the Dinner of the Dental Society, and already money sufficient to provide 15½ chairs has been forthcoming. The rise of the Guy's Hospital Dental School has been a rapid one, and in the short period of twenty-three years since its foundation it has increased in size and scope until it now occupies a foremost place among the Dental Schools of London. The new building which has been erected should serve to increase the work of the school still further, and it is to be hoped that the present appeal for money to provide chairs in the new Conservation Room will meet with a ready and generous response from the numerous old students of the school at present practising all over the country.

THE advantages of having a dental school attached to a general hospital are mutual, and must lead to the better education of men studying either subject. For the dental men the opportunity of seeing the numerous surgical cases in which the co-operation of the dentist is required is very valuable, while to medical students it is very useful to have the most expert and up-to-date dental work carried out in their hospital. The magnitude of the work carried out in the dental department can be seen from the fact that in 1911 the attendance of patients for conservative treatment alone reached 33,460. When the new Conservation Room is in working, it is hoped to treat even greater numbers of patients, to the benefit both of the poor and of the students of the school. It is confidently hoped that the present appeal will meet with a generous response, and that the old students of the Dental School will show that interest in and attachment to their old Hospital which is so characteristic of old Guy's men. Donations in response to this appeal should be sent to the Treasurer, Guy's Hospital.

DESPITE the gloomy forecasts of the pessimists, and despite the chicken-pox, Guy's were once more able to assert their superiority in the final Inter-Hospital Rugby Football Cup-tie, and for the fourth year in succession were able to return in triumph to the Hospital, with both the milk-can and the cup safe in their possession. We would offer our hearty congratulations to the team, and to the captain, Mr. Stranack, who, although unfortunately unable to play in the match, was so largely responsible for the victory. The game itself was played before, what we understand was, a record crowd, and the football was, from the spectator's point of view at any rate, quite the most attractive we have seen at a final cup-tie. The somewhat excessive ragging which delayed the start of the game last year was completely absent, and none could bave objected to the stalwart guardians of the milk-can, nor to the behaviour of most of the partisans of either side. We are completely out of sympathy with those who would have a cup-tie taken in the spirit of a funeral or a clinical lecture, and providing that no delay is caused to the game, and that no damage is done, are of opinion that a little ragging shows a proper appreciation of the importance of the event, and is an excellent proof that it is still possible to be properly young even in these decadent and effete times.

A SECOND National Conference on the Prevention of Destitution is to be held at the Caxton Hall, Westminster, on the four days, June 11th, 12th, 13th and 14th next. It will be remembered that the first conference on this subject, held last year, was a great success, over 3,000 people being present at the public meeting at the Albert Hall, which was addressed by Mr. A. J. Balfour, Sir John Simon and Mr. Ramsay Macdonald. The forthcoming conference is being organized on much the same lines as last year, but its scope is to be extended to include a wider range of subjects. The titles of the sections are as follows:—(1) Public Health; (2) Education; (3) Unemployment and Industrial Regulation; (4) Housing; (5) Crime and Inebriety. Particularly interesting papers and discussions are, we understand, expected on the subjects of the administration of the Sanatorium Benefit, The Minimum Wage, and the Prevention of Juvenile Crime.

THERE can be no doubt that such a Conference as this is of the greatest possible benefit to the community, because it brings together men with expert knowledge of their subject, and makes possible an interchange of ideas between those interested in the various factors which make for destitution. As in any question dealing with poverty, public health plays a very important part, and consequently the conference should be of great interest to, and receive the support of, the medical profession. It has taken many years and many men to convince the profession that its responsibilities include the health of the community as well as that of the individual (indeed, to judge from recent controversy it is hardly yet persuaded) but it grows daily more obvious that the medicine of the future, will pin its faith to, and draw its salary from, the public health, as its predecessor did from the bottle of physic.

We see from the annual report of the work done in the Actinotherapeutic and Electrical Department that during the year 1911, 1,405 patients were treated in the Actinotherapeutic Department, this number being 200 more than in 1910. The increase is chiefly due to cases of ringworm, 132 more cases having been treated than in the previous year. This is due largely to the medical inspection of schools by the London County Council officials. There has also been a considerable increase in the number of cases of malignant disease. This is probably the result of the attention that has recently been called to the use of radium in cancer, rather than to any striking improvement in the results obtained. The number of cases of joint diseases, rodent ulcer, and lupus remain about the same. With regard to the different forms of treatment, X-rays have been used for ringworm, lupus, rodent ulcer, and malignant disease; Finsen light for lupus, radium for cancer, nævus, and cheloid, and cataphoresis and hot air baths for joint disease. The number of cases of nervous diseases that have received electrical treatment has slightly diminished, being 115 compared with 135 in 1910.

We are asked to announce that the essays for the Treasurer's Prize being considered by the judge to be of insufficient merit, the Presidents of the Physical Society have decided not to award the prize, and the last meeting of the Society must consequently be postponed from March 21st to a later date. The Presidents have decided again to open the Treasurer's Prize to competition, but it being considered that the previous subject of "Head Injuries" was rather too wide in its scope, it has been limited to "The Symptoms, diagnosis, and late results of Fracture of the Base of the Skull." Essays must be sent to the Hon. Secs. by Saturday, June 15th, and the prize essay will be read at a special meeting to be held in the summer.

The annual dinner of the Guy's Hospital London University Club was held at the Criterion Restaurant on Friday, March 1st, Mr. Charters Symonds in the chair, supported by Viscount Goschen, and about fifty members and their friends. An excellent dinner was followed by quite the most interesting speeches we have heard for some time, punctuated by the charming singing of Mr. Butcher and the anecdotes of Mr. Eccles. The toast of the club, coupled with the name of the chairman, was proposed by Dr. Adney, who, while dealing with many and varied subjects, carefully omitted any mention of the club, a fact which might with advantage be copied by many after-dinner speakers on many subjects. One feature of the speech was an admirable riddle, very generally quoted when the diners, on leaving, faced the rows of broken windows which are so rapidly breaking the cause of female suffrage: "My first is what you say to a horse when you want it to stop; my second is the most noble animal in creation; and my whole is a sort of devil!"

Mr. Symonds, in replying, dealt at some length with the objects of a university education, and pointed out most admirably that it does exist, and must exist, not for purposes of immediate gain, but for what may spring in future years from the seeds it has planted. He showed how this spirit has existed at Guy's Hospital, "a golden thread, stretching back to the past, which we receive and pass on, trying always to keep it unbroken." The applause which greeted his excellent speech expressed in some measure the appreciation of those present of the splendid way in which Mr. Symonds has guarded and passed on unbroken that thread of public spirit and devotion to the hospital of which all Guy's men are so justly proud. Dr. Fawcett, in proposing the guests, pointed out the gratification of the club at the presence of Lord Goschen, and expressed the general satisfaction at the keenness and interest which he displays over everything connected with the hospital. Lord Goschen, in replying, complimented the secretaries upon their ingenuity in extracting a speech from him, and expressed on behalf of the guests their thanks for the pleasant evening which they had spent. We understand that this year's attendance at the dinner was the largest there has been, and we feel sure that the Chairman's

expression of thanks to the secretaries of the club, Dr. Iredell and Mr. Genge-Andrews, for the trouble they had taken in ensuring a successful evening was heartily seconded by all present.

THE Residents' Christmas play, "Mactreth," is now on sale, and may be obtained at the Porter's Lodge and at the Matron's Office. The price of the book, which includes the music, and is illustrated by Mr. Stanley Cock, is 2s. 6d. Those desiring copies by post should send their names and addresses, together with cheque or P.O. for 2s. 9d., to the Editor, GUY'S HOSPITAL GAZETTE, when a copy will be sent post free.

THE College has lately become such a much sought after dwelling-place that we feel safe in deducing a correspondingly satisfactory condition of its finances, and therefore have no diffidence in suggesting the various structural alterations which are so badly needed. In the first place, it would be of the greatest possible convenience if the bedrooms were to be provided with cupboards in which to hang clothes, a modest comfort, whose absence, however, is very much felt. Secondly, it has been pointed out to us that although there is an entrance to the club-rooms from the courtyard, yet it is so inconvenient of approach that the passage by the porter's lodge is almost always used. It would be a comparatively simple thing to alter the direction of the present steps and to provide a suitable door, leaving space beyond for the provision of a small hall. Such an alteration would greatly improve the appearance of the entrance, and would leave the passage free for its proper uses. The passage past the extern's room is narrow and cramped, and was obviously not meant to serve as the main approach to the club-room, but, inasmuch as it is the shortest way, it is always used.

WE regret that in our last issue we omitted to express our indebtedness to Dr. Cuthbert Lockyer, who kindly furnished the abstract of Professor E. Bumm's paper "On the Treatment of Peritoneal Wounds." The original article appeared in the "Monatsschrift für Gebintshülfe u. Gynäkologie," Bd. xxxiv., 1911. The question is a very interesting one, and will form the subject of an important discussion at the International Congress of Obstetrics and Gynæcology, to be held in Berlin in September next.

Appointments.

Naval and Military.

Deputy Surgeon-General W. W. Pryn to the Royal Naval Hospital, Chatham.

Fleet-Surgeon M. P. Jones, R.N., to the *President* for Special Hospital Course.

Captain P. S. Mills, I.M.S., Plague Officer, Delhi, is transferred to Hosiarpur.

Surgeon-General Sir A. M. Branfoot, K.C.I.E., M.B., F.R.C.S., I.M.S., has been appointed a member of the Consulting Staff of the Convalescent Home for Officers, Osborne.

Civil.

Stanley E. Denyer, C.M.G., M.D. Cantab., F.R.C.S., to be Hon. Aural Surgeon to the Hull, East Yorkshire, and Lincolnshire Institute for Deaf and Dumb.

P. Seymour Price, M.R.C.S., L.R.C.P., to be Assistant Physician to the Margaret Street Hospital for Consumption.

Notice.

THE widow of an old Guy's Dental Student is anxious to dispose of a number of her late husband's books, and would be pleased to hear of anyone desirous of purchasing them. The books are:—

Text Book of Prosthetic Dentistry.
Histology and Patho-Histology of the Teeth, by Hopewell Smith.
Human Osteology, by Steward & Reid.
Pick's Surgery, 1899.
Osler's Medicine, 1901.
Gray's Anatomy, 1901.
Tome's Dental Surgery.
Practical Physiology, by Pembrey, &c.
Manual of Surgery, by Rose & Carless.
Tome's Dental Anatomy.
Diseases and Injuries of the Teeth, by Morton Smale & Collier.
Practical Anatomy, 2 vols.
Halliburton's Handbook of Physiology.

Any intending purchaser should apply to Mr. S. H. Croucher, at the Medical School Office.

Common Fallacies in the X-ray Diagnosis of Disorders of the Alimentary Canal.

By ARTHUR F. HERTZ, M.D.

1. *Gastric stasis.*—A meal, consisting of half a pint of porridge or bread and milk mixed with two ounces of bismuth oxychloride, is completely evacuated by the stomach in about four hours. If, therefore, any bismuth is still seen in the stomach six hours later, gastric stasis is certainly present. It is obvious that this rule only holds good if nothing is eaten or drunk between the bismuth meal and the last examination. Supposing, for example, the bismuth meal is taken at 6 a.m. and a glass of milk and a slice of bread-and-butter be taken at 9 a.m., the latter becomes thoroughly mixed with the small quantity of bismuth and food normally still remaining in the stomach from the bismuth breakfast. Instead of all the bismuth being evacuated by 10 o'clock, some will still be present at noon, when it will again be mixed with the food if dinner is now taken. At 2 p.m., eight hours after the bismuth meal, a small shadow may still be seen, and, if tea and supper are taken at 4 p.m. and 7 p.m. respectively, the last trace of bismuth will not be evacuated until about 10 or 11 p.m. I have repeatedly seen a diagnosis of gastric stasis made because a shadow was still present in the stomach at 2 p.m. after two or more ounces of bismuth had been given at 6 a.m., although this was perfectly normal, as more food had been taken at 9 a.m. and at noon.

2. *Duodenal kinks.*—Normally the first part of the duodenum is rendered visible each time a peristaltic wave reaches the pylorus and ejects some of the bismuth-containing chyme. The rest of the duodenum in less clearly seen, as the chyme is there diluted with the pancreatic juice, bile, and succus entericus. The jejunum is still less easily seen, as it is less filled and the chyme in it is still further diluted with intestinal secretion. When the stomach empties itself with unusual rapidity, as it does in cases of duodenal ulcer, the duodenum is rendered more visible than usual, as at any given moment more bismuth is present in it. It is for this reason that in duodenal ulcer the whole of the duodenum is very easily seen, and the normal processes of segmentation and peristalsis can be more readily demonstrated in it than under any other circumstances. As the evacuation of the stomach is always accelerated by lying down on the right side, the duodenum is filled most rapidly, and can therefore be seen most easily, if an individual lies for a minute in this position before turning on to his back for the examination. The rapid evacuation of the stomach in duodenal ulcer and the effect of posture explain the occurrence of the shadows, which have been erroneously interpreted as affording evidence for this existence of duodenal dilatation and kinks in cases of ulcer, as before the skiagram of the duodenum is taken the patient is always made to lie on his right side; moreover, it is taken in the horizontal position, although it is said by those who believe in its occurrence that it only exists in the erect position and disappears on lying down. In over forty cases of uncomplicated duodenal ulcer I have never yet seen duodenal distension or a duodenal kink, and it is a characteristic feature of the condition that the stomach is hypertonic and empties itself with unusual rapidity, the bismuth passing through the small intestine and reaching the colon with remarkable speed. These observations have been confirmed with the X-rays in a large number of cases by Dr. Barclay of Manchester and in all of Mr. Moynihan's more recent cases at Leeds.

3. *The iliac kink.*—In 1903 Keith proved the existence of a strong ileo-cæcal sphincter in man. More recent investigations have shown that it causes almost as much obstruction to the passage of chyme from the ileum into the cæcum as that offered by the pylorus to the food passing from the stomach into the duodenum. Like the pylorus, it relaxes each time a peristaltic wave reaches it, unless for any reason, such as the presence of inflammation in the neighbourhood, relaxation is inhibited. Owing to the obstruction it causes, a considerable accumulation of bismuth invariably occurs in normal individuals at the end of the ileum from four hours after a bismuth meal until four hours after the last trace of bismuth has left the stomach. This is, of course, increased in all conditions leading to spasm or to inhibition of the normal relaxation of the ileo-cæcal sphincter. If ordinary meals are taken after a bismuth meal, so that some bismuth remains in the stomach (in the manner already described) until the evening, the shadow at the end of the ileum will be normally visible until late at night. The end of the ileum, as it rises from the pelvis to join the cæcum, bends in various directions; as the shadow on the screen is in one plane only, it is natural that it often appears as if it formed one or more acute angles or kinks. By palpating the abdomen

during the examination it is easy to demonstrate that these "kinks" are only apparent. I have never seen a genuine kink with the X-rays, which did not disappear on palpation, except in patients who had had one or more definite attacks of appendicitis. The obstruction offered by the genuine iliac kink is generally considerably less than that normally offered by the ileo-cæcal sphincter three inches further on. This is well shown in the skiagrams published to demonstrate the iliac kink, as the shadow is just as dark in the ileum beyond the kink as behind it; this is not surprising, seeing that the contents at the end of the ileum are always fluid.

4. *Kinks at the hepatic and splenic flexures.*—In normal individuals examined with the X-rays the hepatic and splenic flexures almost invariably appear to be acutely kinked. This is again the result of the shadow being cast in a single plane, as the limbs of the flexures belonging to the transverse colon are in front of those of the ascending and descending colon respectively, and therefore the flexures appear to be acute, although they form a wide angle when looked at from the side.

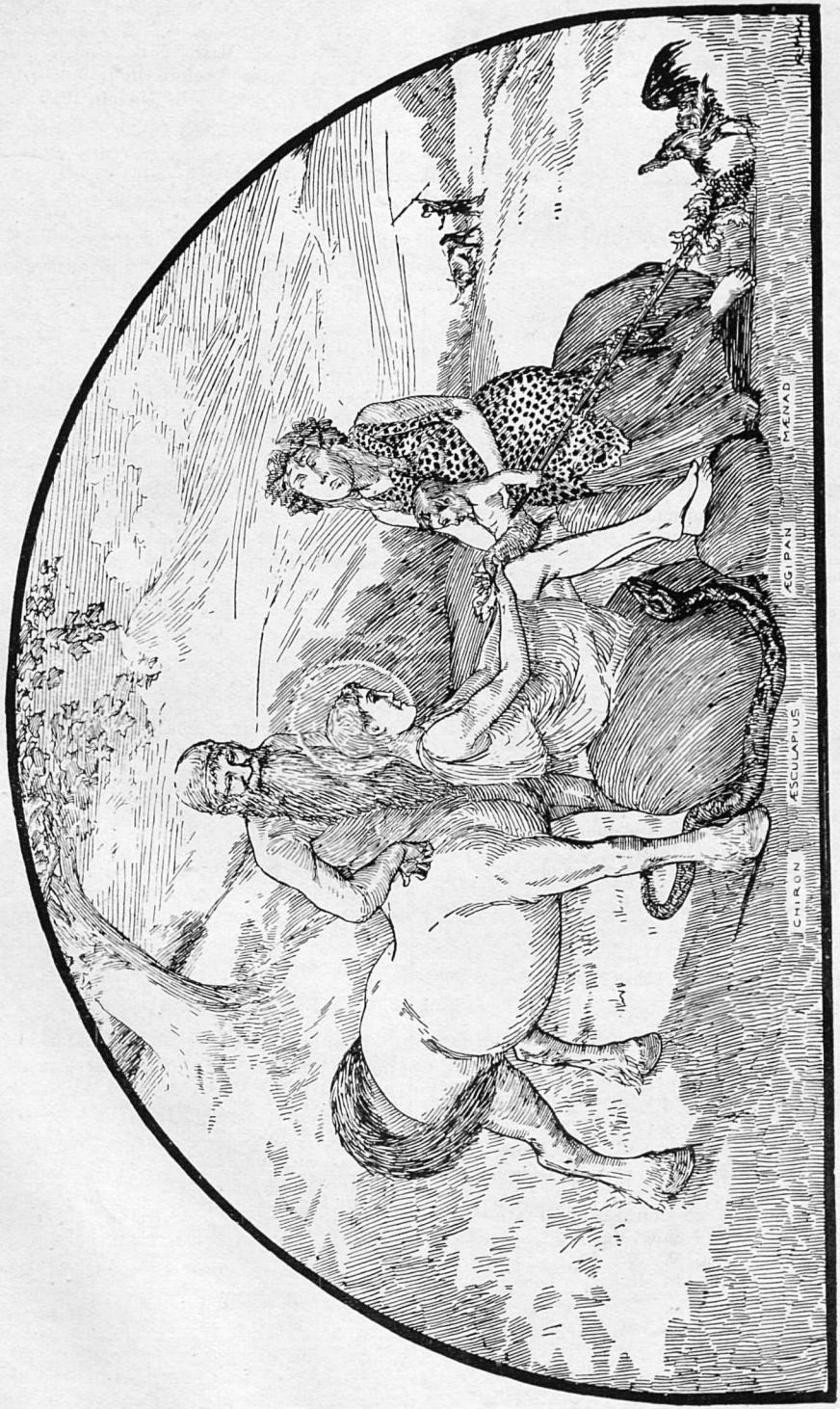
5. *Intestinal stasis.*—Most cases of constipation are more or less cumulative, the bowels never being completely evacuated, so that more and more fæces are retained. In dyschezia, for example, a condition in which, owing to inefficient defæcation, the rectum is never emptied, an accumulation of hard fæces forms successively in the pelvic colon, descending colon and even the transverse colon. If, therefore, a bismuth meal is taken without first thoroughly evacuating the bowels, the bismuth travels with more or less ease as far as the beginning of the fæcal accumulation, beyond which it passes with extreme slowness, corresponding with the rate of excretion of the most distal part. If, however, the colon is first thoroughly evacuated by means of enemata, it is found in such cases that the bismuth often reaches the rectum in the normal time, but owing to difficulty in defæcation it is retained there. It is only possible to distinguish such cases of dyschezia from true colonic constipation, in which delay occurs in the colon itself, by emptying the bowels completely before the examination is begun. Numerous mistakes in diagnosis have resulted from the neglect of this precaution.

The Bismuth Meal.—In some unpublished investigations Dr. Rippmann and I have found that the weight of the bismuth mixed with the food produces a certain amount of distortion of the stomach, especially in cases of atonic dilatation; it also tends to drag the cæcum and the end of the ileum downwards. It is therefore clear that the smaller the dose of bismuth used the more accurate will be the results obtained by means of the X-rays. Except in very fat individuals, two ounces of a bismuth salt are ample for all practicable purposes; the use of six ounces trebles the error.

Physiological investigations have shown that the peristalsis of the stomach and, to a still greater degree, the control of its evacuations by variations in the tone of the pylorus depend upon the presence of free and organically combined hydrochloric acid. For this reason bismuth carbonate, which neutralises every trace of hydrochloric acid in the stomach, is not a suitable preparation for X-ray work. Its depressing effect on gastric peristalsis can be readily demonstrated by giving a patient on consecutive days a bismuth meal of identical composition, except that the oxychloride is used one day and the carbonate the other. In two healthy individuals examined in this way for me by Mr. Depree, who did not know which salt was used on either occasion, the peristalsis was recognised by him as being very much more powerful with the oxychloride than with the carbonate. The chemically inert oxychloride should therefore be substituted for bismuth carbonate. It has, indeed, been adopted by most observers since, at Mr. Finnemore's suggestion, I first used it four years ago.

It seems probable that in the future barium sulphate will be substituted for bismuth oxychloride. Like the latter, it passes through the stomach without undergoing any chemical change, it is equally opaque to the X-rays and equally devoid of toxic properties, whilst it has the advantage of costing eightpence a pound, as compared with ten shillings a pound, which is the price of bismuth salts. The importance of this is obvious, when it is remembered that about £50 worth of bismuth salts was used for skiagraphic purposes at Guy's in 1911.

Lastly, the nearer a bismuth meal approaches a normal meal in taste and consistence the more nearly normal will be the results obtained. For this reason the bismuth should be mixed with bread-and-milk or well made sweetened porridge instead of with water and lactose, as the latter makes a most unpleasant mess, the nastiness of which must inhibit the normal gastric movements and secretion. Moreover, the latter allows sedimentation of the bismuth to occur much more rapidly than when it is mixed with porridge, so that only the lower part instead of



ORTHOPÆDICS IN ARCADIA.

the whole of the stomach is clearly visible, and the effect of its weight being concentrated on one part instead of diffused over the whole of the gastric wall, leads to greater distortion.

R. I. P.

[A feature of the new suite of operating theatres is a common sitting-room for the surgeons.]

Would you master the mind of the surgeon
When the work of the day has been done?
Would you hear him attempting to urge on
His views about plating a bone?
Would you hear him expounding to Frankie
His thoughts upon what others think?
Would you see him explain with a "hankie"
The first and last kink?

Would you hear of the goitre that Charters
Removed in a minute or less?
Or the tale of the myriad martyrs
Who live each great surgeon to bless?
Would you hear the "Indeed, yes, whatever,"
Or "Do you see? Do you? and do you?"
Or "You dear things, you know that I never
Do anything new"?

In fact, would you see them enacting
A really good Hospital Play,
With actors who've no need for acting,
And no need to mind what they say?
Would you hear all the surgeons expressing
Their views on the medical side,
Or watch them so quaintly confessing
What wasn't inside?

Then come, and we'll see if the door of
That wonderful room is ajar;
And p'raps I can show you some more of
The great as they are!

Change of Address.

E. L. Elliott, M.B., B.S., from The Grey House, Sevenoaks, to Willowtree House, Otford, Sevenoaks.

C. J. Hinchcliff, L.D.S., from "Westbourne," Selhurst Road, South Norwood, to "Southbrook," 1, Princess Road, South Norwood.

Percy S. Mandy, M.R.C.S., L.R.C.P., from Gordon House, West Parade, Hythe, to Quarry House, North Road, Hythe, Kent.

Walter E. Watson, L.D.S., from Leavy Greave House, Sheffield, to 12, De Parys Avenue, Bedford.

Deputy Surgeon-General W. W. Pryn, R.N., from Haslar Hospital, Gosport, to Royal Naval Hospital, Chatham.

P. C. P. Ingram from Royal Societies Club to Ivington, 23, Stow Park Avenue, Newport, Mon. Nat. Telephone No. 608.

Miss M. Newton, from the College, Guy's Hospital, to Victoria Cottage, Steeple Claydon, Bucks.

Papers by Guy's Men.

A. P. Beddard, M.D., F.R.C.P.: Anæmic Vomiting. An address delivered before the Lambeth Division of the B.M.A.—*The Practitioner*, March, 1912.

H. C. Cameron, M.D.: A Case of Enterogenous Cyanosis.

The Relative Value of Immediate and Delayed Laparotomy in Pneumococcal Peritonitis.

Proc. Roy. Soc. Med., Vol. v., No. 4.

R. Davies-Colley, M.C., F.R.C.S.: The Diagnosis of Ectopic Gestation.—*British Medical Journal*, March 2nd, 1912.

L. A. Dunn, M.S., F.R.C.S.: Retrograde Enteric Intussusception.—*Clinical Journal*, March 6th, 1912.

J. W. H. Eyre, M.D., F.R.S.E. Bacteriology in Dental Work. Demonstrated before the Annual Meeting of the B.D.A. at Guy's Hospital, December 6th, 1911.—*British Dental Journal*, March 2nd, 1912.

C. H. Fagge, M.S., F.R.C.S. Epithelioma of Tongue. Operation: Subcutaneous Recurrence on Back five years later.—*Proc. Roy. Soc. Med.*, Vol. v., No. 4.

Herbert French, M.D., F.R.C.P. A Case of Tumour below the Right Hypochondrium; ? Riedel's Lobe.—*Idem.*

T. D. Lister, M.D., M.R.C.P., F.R.C.S. The Problem of Aftercare of Sanatorium Patients.—*The Lancet*, March 9th, 1912.

Lawrie McGavin, F.R.C.S., and another. A Report and Analysis of 500 operations Performed under the Influence of Spinal Analgesia by the Use of Stovaine-Glucose Solution.—*The Practitioner*, March, 1912.

John D. Malcolm, F.R.C.S.: Remarks on 400 Operations Involving the Peritoneal Cavity. Read before the Medical Society of London.—*Idem.*

E. G. March, M.D., F.R.C.S. Ed.: The Mimicry of Phthisis by Hysteria.—*British Medical Journal*, March 9th, 1912.

G. N. Meachen, M.D.: A Case for Diagnosis.—*Proc. Roy. Soc. Med.*, Vol. v., No. 4.

C. J. Morton, M.D.: The X-ray Prognosis of Fractures.—*Idem.*

Sir Henry Morris, Bart., M.A., M.B. Lond., F.R.C.S.: On Malignant Disease of the Testicle and the Operation for Removal of the Ilio-lumbar Lymph Glands when Secondarily affected.—*Lancet*, March 9th, 1912.

Bertram B. Samuels L.D.S.: A Crowned Tooth with a Perforated Root.—*Proc. Roy. Soc. Med.*, Vol. v., No. 4.

T. G. Stevens, M.D., F.R.C.S. A Lecture on Unusual Hæmorrhages at Puberty and the Menopause. Delivered at the Polyclinic.—*Clinical Journal*, March 6th, 1912.

W. C. Swayne, M.D. Two Cases of Missed Labour.—*Proc. Roy. Soc. Med.*, Vol. v., No. 4.

J. Ll. M. Symns, B.A., M.R.C.S., L.R.C.P. An Accurate Method of Estimating the Vibratory Sense.—*The British Medical Journal*, March 9th, 1912.

Phillip Turner, M.S., F.R.C.S. The Radical Cure of Hernia in Children.

Primary Chancres of the Lip.—*Proc. Roy. Soc. Med.*, Vol. v., No. 4.

Cirrhosis of the Liver.

CLINICAL LECTURE BY W. HALE WHITE.

Gentlemen,—Our patient is a man, æt. 54; he is a cabdriver. He came into the hospital on the 5th of this month—a week ago. He was admitted for shortness of breath and swelling of the legs. He may have had syphilis, but we are not sure about that. He had pleurisy and jaundice twenty-six years ago. For the last twenty years he has been a steady drinker, mostly taking rum and hollands, and for the last four or five months he has drunk—he volunteered the statement—more than was good for him. Six or seven weeks ago he first noticed marked swelling of his legs, which used to diminish in size at night time when he had rested in bed. The swelling has been progressive. He has not had any sickness, diarrhœa, or constipation, but he has had no appetite for breakfast, although he enjoys his meals later in the day. The impulse of his heart is very feeble and is half an inch outside the nipple line, and his pulse is somewhat irregular. You will be able to see that he has an emphysematous chest, and the state of the abdomen I shall be able to demonstrate to you. His fæces are pale in colour; his nervous system is quite normal. When he came in he had well-marked œdema of his legs, but that has gone down somewhat. He had bile in the urine, but no albumen, blood, or sugar. The œdema is disappearing with his stay in the hospital. His blood pressure is 120, and has remained so during the whole time he has been in the hospital. He is less yellow than when he came in, but his conjunctivæ are still of that tint; there is still œdema of his feet. We shall not deal with his shortness of breath in the lecture to-day; we shall take his abdomen, which, in spite of the belt which he wears for a hernia—which does not concern the present condition—is very large and protuberant; and the liver is uniformly large, coming down to within two inches of the umbilicus on the left, and level with it on the right. He was a little dull in the flanks, and the dulness altered when he was shifted. But the amount of fluid in the abdomen is slight. So here is a man with an uniformly enlarged liver, who is slightly jaundiced, has slight ascites, swelling of the feet, and a good deal of dyspnœa. We will not consider the dyspnœa this afternoon, because that would lead us into the question of his emphysema, which is nothing to do with the cirrhosis, and it would also lead us into the question of the state of the heart, as this is dilated, but has nothing to do with the cirrhosis.

So let us now confine ourselves to the enlargement of the liver and the slight jaundice, and the œdema of the feet. When you come across a person who is said to have a large liver it goes without saying that what you have to do is to make sure that the liver is enlarged and not simply dropped. A dropped liver is rare in a man, but less rare in a woman. I need not tell you we satisfied ourselves that this liver was really enlarged. It is well in every patient, when endeavouring to make a diagnosis, to fix on one prominent physical sign or symptom, and say to youself, What can be the cause of that? Can the cause which I select as the most likely be fitted in with the other symptoms? That is the right way to investigate a medical case. You see a rash, and you ask yourself, What are the causes of such a rash? You select what you think the most likely cause, and you see if the other features of the case will fit in with it. Your skill as clinical physicians will depend upon your selecting as a basis of discussion the right physical sign or symptom. It would be very unwise, in this case, to select the fact that the man cannot take his breakfast properly; the right fact to select here is that the man has a big liver, and you have to think over all the causes of a big liver You must first observe that the liver is uniformly enlarged. All enlarged livers fall into one of two classes; either the enlargement is uniform or it is not uniform. The causes of uniform enlargement of the liver are not many. It was suggested at the bedside that this hepatic enlargement might be caused by a new growth. But a new growth of the liver very rarely produces uniform enlargement of it, for there are nodules of new growths scattered about, making the liver feel lumpy. In order for growth of the liver to produce uniform enlargement, it must be diffusely and uniformly scattered throughout the organ which is unusual. A nutmeg liver is uniformly enlarged, but if this were that we should have found a cause for it, usually bad mitral disease. Often the nutmeg liver is tender because the capsule is stretched, and the liver is remarkably smooth when it is of the nutmeg variety. This patient has no mitral disease and his liver is neither painful nor smooth. A fatty liver is uniformly enlarged, but a large fatty liver is not hard like this. A lardaceous liver is uniformly enlarged;

but our patient has no active syphilis, and no suppuration to cause his lardaceous disease. Moreover, a lardaceous liver is remarkably smooth. So we were driven to the belief, by a rapid process of exclusion, that he had cirrhosis as a cause for the uniform enlargement of his liver. Having come to that opinion, we will take the case in what I apprehend is the correct way to deal with it, to try and fit in the other symptoms with our suggested diagnosis of cirrhosis. If the liver is cirrhotic, it should be moderately enlarged; a cirrhotic liver rarely weighs more than 100 ounces. This man's liver is moderately enlarged, it does not reach below the umbilicus. In the early stage a cirrhotic liver is smooth, and later it becomes slightly rough. I show you a specimen which illustrates the state of things in a later stage. I will tell you what happens in the cirrhotic liver, and you will then see the reason for this. The reason why this man's liver is enlarged is that he has, added to the normal structure, an excess of fibrous tissue, some new blood vessels, and proliferating new liver cells. Some of the cells undergo fatty degeneration, so that the organ is often pale. But inasmuch as the main enlargement is due to fibrous tissue, you are prepared to believe that while in the early stage the surface is smooth, later, as the fibrous tissue begins to contract, as you see in that specimen, it will pucker the liver in little places, and hence produce a slightly rough surface. If you were to feel this man's liver you would find it is not uniformly smooth, like a lardaceous or nutmeg liver. But I do not think that the roughening is as great as in the specimen passed round. Then, as the enlargement is due to fibrous tissue, the liver will feel hard and tough. Those of us who felt this man's liver agree that that is so here. If we could see his liver we should see that it was fibrous and to some extent fatty, that it was hard, and inasmuch as he is jaundiced, we should see that it was bile stained. So that is the state of affairs which we believe to be present.

It is convenient, for the purposes of lecturing, to finish what there is to say about the liver before going further into the case. If the disease in this man progresses in the usual course, this is what will happen in the liver. Gradually the fibrous tissue will increase and will pucker the liver more and more, destroying more and more of the normal liver cells, and more of them will undergo fatty degeneration. Even some of the new liver cells that are formed will, in their turn, undergo fatty degeneration and be destroyed. And you know how fibrous tissue tends to contract, as you can see after a burn. So as months go on, if the disease takes its ordinary course and the patient survives, the contracting fibrous tissue will make the liver smaller and smaller, and there will be the final stage of contracting cirrhotic liver, such as you see in this specimen, which does not weigh, probably, more than 38 ounces. It is hardly likely that every band of fibrous tissue will contract in the same way and to the same extent, and this difference leads to the formation of irregular nodules of liver tissue, isolated by these contracted bands. These nodules are called hobnails, and there are plenty of them on this specimen.

You will say, what proof have you of all this? The proof is this. In the first place, people have been known to come into hospital with a liver which was in the stage of this man's; they have been re-admitted two or three years later, and then the liver has been found in the small stage, proving that the hypertrophic stage is the first, and that the atrophic is the later stage. Again, it is found that if you look up the cases in this Hospital you will find from the post-mortem room that in 60 per cent. of the cases of cirrhosis the liver was over 60 ounces in weight, in 22 per cent. it was of normal weight, and in 18 per cent. it was under the normal weight. Clearly, as cirrhosis has a high mortality, there are fewer alive at the later stages, and if the atrophic stage were the final one you would get such figures as I have mentioned.

Now, we will run over the symptoms. In the first place, from one-half to one-third of all the cases found are first detected by the morbid anatomist; the clinical side of the hospital was unaware that the condition was present; in other words, the condition produced no striking symptoms during life. That is a hopeful fact, and encourages us to hold out a good prognosis to some patients if they will abstain from alcohol. The usual age at which cirrhosis of the liver is detected is from 30 to 50. Our patient is 54. It is three times as common in men as in women, so this patient is of the usual sex. That illustrates the difficulty of explanations in medicine, because another effect of the same poison, namely, alcoholic neuritis, is commoner in women than it is in men. The differences of the effect of the same cause in the two sexes is so well known that we hardly pause to reflect how wonderful it is. It must surely show a different chemical constitution of the liver and nerves in the male and female, the same poison combining more readily with the liver of

men, but with the nerves of women. When you get into practice you will find that cirrhosis of the liver is commoner at the hospital than it is among the middle and upper classes. Why that is nobody knows, the difference is greater than might be explained by a difference of habit in respect to alcohol. You notice I said the patient had dyspepsia, and a distaste for breakfast, both common in cirrhosis, and he is getting the facies associated with it; you see the dilated venules, and little nævi. Cirrhosis is a cause of purpura. A few years ago we were saying so at the bedside in John ward, and the very next case the clinical saw in the front surgery was that of a man with considerable purpura. He felt his liver, found he had cirrhosis, and brought him in at once. The skin becomes loose and dry, and this man's is beginning to be so. There is often loss of weight, but here it is difficult to know whether there has been, because of his œdema. Many causes operate that may explain this loss of weight; it may be due to indigestion, which these patients have, and which often causes tympanites, and, as I pointed out in the last lecture, they sometimes have a slight raised temperature. That is not so in this case. The liver I have already described to you. It is very rarely painful; when it is it means there is a little local peri-hepatitis. You will notice that this man is jaundiced, and about one-third of the cases are so. The jaundice is never severe; these patients never have the dark green, almost black jaundice which is often associated with a growth. They have sometimes the usual symptoms associated with presence of bile in the blood, but not so often as a man with cancer of the liver, because the jaundice is not so deep. None of them are shown in this patient. The urine, you will remember, in this case followed the usual course of such cases, for it was very dark brown, of high specific gravity, and did not contain either blood, albumen, or sugar, but there was plenty of bile in it. The fact that it is so highly coloured is due to the excess of bilirubin in it. What has happened has been that the man, because the outflow of bile is impeded, has not passed so much bilirubin into the intestines as he should, and so not so much urobilin has been formed, but bilirubin has got absorbed into the lymphatics of the liver and has thence passed into the blood and thence into the urine. I forgot to mention the explanation of the jaundice, we believe it to be obstructive. The pressure of the fibrous tissue, or some slight inflammation of the smaller bile ducts, has led to their blockage, and the consequent absorption of the bile behind the block by the lymphatics. The trouble takes place entirely in the smaller ducts. Blockage only occurs in some of them, it is not complete; hence the jaundice is no deeper than you see it in this man. Ascites is fairly common, but not so common as the jaundice. I need not tell you how to recognise it by the shifting dulness and the thrill, but I want to warn you about it in women. We average here one or two mistakes every year in which, after members of the resident and visiting staff have seen a case, the diagnosis between ovarian tumour and ascites is wrongly made, therefore it is well when you are going to tap a woman's abdomen, to do it by means of a small incision under an anæsthetic, so that should there be an ovarian tumour, no harm will have been done. It is a serious mistake to tap an ovarian cyst under the idea that it is ascites. The spleen of this man is not enlarged, but it probably will be later. The reason for its enlargement is the same as for the jaundice, the contraction of the fibrous tissue pressing on the branches of the portal vein in the liver, leading to swelling of the spleen. I have known the spleen reach 80 ounces. Because of pressure on the minute branches of the portal vein in the liver, these patients get hæmatemesis. This man has not brought up any blood, but if the disease had lasted longer he very likely would have done so. You know hæmatemesis is due to dilatation of the veins in the stomach, and it usually takes place at the cardiac end, where there is anastomosis between them and the œsophageal veins. Hæmatemesis is very rarely fatal, and once it has occurred, a second attack does not usually come on for some time; it is not a frequently recurring hæmatemesis like that of severe gastric ulcer. There may be bleeding from other parts of the bowels; and he has just told me he has passed blood from the rectum, and that is not surprising, considering the cirrhosis. He has piles. Many people believe that they are more common in cirrhosis than in other conditions. Statistics vary very much on that point, but I think the balance of evidence is that piles are not more common in the subjects of cirrhosis than in other people.

If this man's cirrhosis progresses what will probably happen is that he will gradually become comatose. We do not know what the poison, which produces coma, is, but the terminal event of cirrhosis when the cirrhosis itself is the terminal cause, is coma. Another point of great interest is, that these patients get œdema of the feet, and in this man the œdema is exceptionally great, for probably the œdema which is naturally present in cirrhosis is increased

by the fact that the circulation is failing. I shall mention the cause of the œdema shortly. If you want to get a clear conception of cirrhosis please put out of your mind the common notion that it is solely a local disease of the liver. It is not; or, at any rate, some general effects are produced by it. It is commonly assumed, but incorrectly, that the reason a man with cirrhosis gets ascites is that the pressure of the fibrous tissue on the portal vein leads to effusion of fluid in the peritoneal cavity. I have known fluid in these cases collect at the rate of a pint a day, and that does not look as if it were due solely to the increasing fibrous tissue. Often there is an extreme degree of cirrhosis and yet no ascites. Again, if it were due to pressure on the portal vein you would expect the amount of ascites to be greatest in those who had hæmatemesis, for there, presumably, pressure in the branches of the portal vein is highest. But there is no association between the ascites and the hæmatemesis. Finally, there is the experimental evidence. If you ligature the portal vein, unless you ligature the whole of it, you do not find any ascitic fluid, and even then the ascitic fluid poured out is quite small in amount and is quickly re-absorbed by the peritoneum. So I think, if you are considering the subject of cirrhosis of the liver, the first thing you have to grasp is that the ascites is not only due to the pressure of the fibrous tissue in the liver contracting on the portal vein and its branches. It is probably chiefly due to some poison circulating in the system, and the reason there is ascites is that the pressure on the portal vein determines the peritoneum as the most suitable site for the exudation of the fluid by this poison which is circulating as a result of the disease of the liver. That there is such a poison circulating is borne out by the fact that the man gets œdema of his feet. I may forestall the criticism that the œdema of the feet is due to pressure of ascitic fluid in the abdomen, by remarking that the œdema of the feet in these cases often comes on long before there is increased pressure in the abdomen. This man's liver is not big enough to compress the vena cava; there is not enough fluid in the abdomen to press on the vena cava, and so cause œdema of the feet. Œdema of the feet is due to the same cause as the ascites, namely, a poison circulating in him as the result of the liver disease. And just as a man with cirrhotic kidney has a poison circulating in him as a result of cirrhosis of his kidney, and that poison is an œdema-producing and a coma-producing poison, so here as a result of hepatic disease there is an œdema-producing and coma-producing poison. In support of this view I would remind you that people with cirrhosis of the liver are particularly prone to passive pleuritic effusion.

We have no doubt this man has cirrhosis. But still, two or three possibilities pass through our minds. In every case of enlarged liver think of cancer, as that is a common cause of its enlargement. We decided rapidly that this liver was not carcinomatous. The history was against it. And as I have said, a cancerously enlarged liver is irregularly enlarged. A man with cancer of the liver and jaundice has clay coloured motions, but people with cirrhosis do not have these, because some bile gets through into the intestine. The question was raised at the bedside as to whether this liver is syphilitic or cirrhotic. I do not think students appreciate the fact that syphilis of the liver is of very little clinical interest. Nearly all syphilitic livers which we meet with are found after death, not during life. Syphilis congenital, or acquired, can only produce one form of hepatic disease of interest to us as clinical physicians; what it does to the liver is, as this specimen shows, to cut it up into irregular masses of healthy liver tissue between bands of fibrous tissue. There may also be gummata in the liver, so there is no liver so irregular as a syphilitic liver. But it produces no symptoms whatever, and therefore four-fifths of the syphilitic livers are not suspected during life, and are first detected by the morbid anatomist. An ordinary syphilitic liver never causes jaundice, never causes ascites. It is perfectly true that very young children have a diffused fibrosis throughout their whole liver as the result of congenital syphilis, but children so affected die so early that they are of little clinical interest in the fact. As this man has jaundice and ascites, his liver cannot be syphilitic. Before leaving that, let me remark that the books are most confusing about the use of the word cirrhosis. The condition of this man's liver is the only condition which we know clinically as hepatic cirrhosis. There are many conditions given at great length in some books, in which a slight merely histological cirrhosis occurs; for instance, in long-standing specific fevers, but clinically there is no other condition which we recognise as cirrhosis of the liver except what I have been talking about this afternoon.

Now, with regard to prognosis. Many patients, as I have told you, have the condition without any symptoms at all, and that encourages you to think that early cases may do well. Ascites and

jaundice indicate a bad prognosis value, and the combination of them is particularly bad. This man has a possibly recoverable condition, under suitable circumstances. I doubt, however, whether it would be a recoverable condition in six months if he continues drinking. Nervous symptoms, such as coma, are of bad prognosis; they have not developed here. Hæmatemesis is not of bad prognosis, but rather of good, as the loss of blood relieves the patient. The swelling of the feet is of somewhat bad outlook, because it shows that the sufferer is poisoned. This man, remember, has œdema. What is very bad is for such a patient to have secondary infections. It would be very unfortunate if this man got pneumonia or phthisis, or syphilis. There is no secondary infection here.

The treatment is, of course, obvious. You will entirely forbid drinking of alcohol. As there is congestion of the portal area you will be careful to see that the patient's bowels are kept well open. As he has had indigestion you must see that his food shall be plain and easy digested and well masticated. If he were to become comatose a saline infusion would be the right thing, in the hope of washing out the poison, giving him purgatives at the same time. If the ascites were moderate we could do a good deal by giving him diuretin: copiaba resin, too, is an excellent diuretic for these patients. I am often asked when to tap the abdomen. That raises the question which I should have alluded to under prognosis, namely, the prognostic value of the ascites. That has been thrashed out and thoroughly settled, so I can give it you quickly. If the ascites is severe the prognosis is very bad, so much so that in the vast majority of the patients with ascites the case terminates fatally within two months of the first tapping, provided that the ascites is severe enough to demand tapping. That was the opinion of nearly all the writers up to about 1870, and it has been confirmed since by the collection of cases from here, by the collection of cases by Dr. Thompson from the Middlesex Hospital, and by Dr. Ramsbottom of the cases from the Manchester Infirmary. Apparent exceptions to the rule are cases in which the ascites is not due solely to cirrhosis, but the patient has some other cause in association with cirrhosis; for example, chronic peritonitis.

You should only let out the fluid when there is so much that the abdominal distension is hampering the patient. If, for example, it is pressing up the heart, or making breathing difficult, you tap. Otherwise you do not, for no good follows the mere removal of fluid.

Another thing, which I have often discussed with you at the bedside, is whether it is any use to do one of the operations having for their object the anastomosis of the portal with the general circulation. The abdomen is opened, the peritoneum covering the liver and spleen are roughened with a sponge, and the omentum is roughened. The roughened omentum is stitched to the abdominal wall and the abdomen sewn up again, except that a tube is put in to the lower part of the wound to allow the fluid to drain. The object is to form an anastomosis between the portal and the general venous system. As you would expect, that operation does not do good, for we have seen that the cause of the fluid is not only pressure on the portal vein. One-third of the cases operated upon by this means are dead within a month of the operation, so it is not encouraging. It is true that some successful cases have been recorded, but it is likely that in many of them there is no cirrhosis present at all, and it is an operation which is gradually falling into disuse.

The only thing I want to say now is, What can be the cause of this condition? It is true it is frequently associated with, as in this case, over indulgence in alcoholic drinks, and there is some relationship between cirrhosis and such drinks, and this patient ought to give up the taking of alcoholic drinks. But there is no doubt that alcohol is not the sole cause of hepatic cirrhosis. The reasons are these. This state of the liver may be found in children. It is true that some children in whom it has been present have taken a good deal of alcohol, even at four or five years of age, but some have taken none at all. I know one case in which it was suggested that the child's cirrhosis was due to the amount of alcohol which it took in 5 m. of tincture of perchloride of iron three times a day. I think if a person is driven to such an argument there cannot be much in his case. And there are some adults who certainly have not taken alcohol to excess, but who yet get fatal cirrhosis of the liver. I have often quoted to you cases in point. It is curious you do not get much cirrhosis of the liver in asylums, although there are a number of people there who have taken more alcohol than they should. And there is the remarkable fact that cirrhosis is to some extent a local disease. It is rare in Scotland, it is rare in Germany; yet I do not suppose that the most patriotic Scotsman or the most fervent German could maintain that the people of Scotland or Germany drink less alcohol than the Londoner. Possibly the most likely explanation is that the real cause of the cirrhosis is an

unknown poison, and that the formation of that has many causes, one of which, under certain unknown conditions, is over-indulgence in alcohol.

Some Recent Advances in Cancer Research.

By R. A. CHISOLM, M.A., M.D., M.R.C.P.*

The discovery that malignant new growths exist among the lower animals, and that they can, under certain conditions, be transmitted by inoculation from animal to animal of the same species, forms the foundation of all modern cancer research, and has made it possible to attack by the experimental method problems which seemed insoluble by clinical observation alone. It has also directed attention to the disease as it exists in animals, and it is now known that malignant growths are to be found throughout the vertebrate kingdom, and that among them are to be found representatives of nearly all the histological types of tumour that occur in man. In view of past controversies it is perhaps as well to insist that in its spread at the expense of the surrounding tissues, its tendency to recur if incompletely removed by operation, and its power of forming secondary deposits in distant organs, cancer in animals satisfies all the criteria of malignancy. In order to propagate animal tumours successfully it is necessary to transplant it at first into a very large number of animals—often several hundreds at one time—and this consideration has so far limited the experiments almost entirely to rats and mice, though in a few cases fowls have been employed; but quite recently it has been found possible to propagate a sarcoma in the rabbit, and there seems no reason to doubt that it would be possible, given the necessary number of animals, successfully to transplant the growth of even the largest animals.

Two methods of transplantation are commonly employed: either small pieces of the solid growth are inserted under the skin by means of a hollow needle of wide bore fitted with a metal plunger, or the tumour is emulsified with or without normal saline solution and injected with a syringe. In both cases the inoculation is made, in rats and mice, into the loose subcutaneous tissue of the flanks, though for certain purposes intraperitoneal inoculation is employed. The conditions necessary for successful transmission have been closely studied and have revealed facts of great interest. Firstly, the material injected, whatever means be employed, must contain living tumour cells. It is true that Ross, in America, has recently claimed to have transmitted a sarcoma in the fowl by injection of a cell-free extract of the tumour, but his results are in direct contradiction to those of all other observers and need further confirmation before they can be accepted. Secondly, inoculation is only successful from animal to animal of the same species: rat tumour cells transplanted into mice invariably disappear spontaneously, behaving in this respect like normal tissue cells, which never grow on subcutaneous transplantation into another animal. Again, the age of the animals used is an important factor: implantations into young animals are much more successful than those into older animals, though spontaneous tumours are found in the latter alone. It is possible, however, to carry the analysis of the conditions requisite for success a step further: a tumour that is growing freely in English mice, when transplanted into Danish or Japanese mice, will at first only give a very small percentage of successes, though in subsequent generations it will adapt itself to its new surroundings and grow as freely as before. That is to say, the tumour cells which are adapted to growth in English mice are so sensitive to the slight differences that exist between the tissues of English and Danish or Japanese mice that at first they will only grow with difficulty in the latter. As is well known, it is possible by injecting blood of one animal into another animal of a different species to produce specific præcipition and hæmolysins from the blood of the first animal, and this reaction has its place, in medico-legal work as a means of distinguishing between the blood of man and other animals; but this reaction is far less delicate than the reaction of the new host to the presence of tumour cells introduced by inoculation, for the slight differences between various races and ages of the same species of animal are quite beyond the ken of præcipition and hæmolysins. But this is not all: a tumour growing spontaneously in a mouse or rat, if removed by operation and inoculated into normal mice or rats, has been known to fail to grow, though transplanted into as many as 900 animals, but if, after removal, it is re-inoculated into its original host, it will grow successfully in 95 per cent. of the cases. The success of this autoplastic transplantation is, however, not due to an enhanced suitability of the tissues of the spontaneously affected mouse for the growth of cancer cells in general, for if the tumour removed from such a mouse be inoculated into other spontaneously affected mice, the percentage of successes is no greater than in the case of normal mice. In other words, the adaptation of the tumour cells to their surroundings is an individual one and resembles the adaptation of the wards of a key to the lock it is made to fit. It demonstrates strikingly the specificity of the medium which each animal represents.

The practical application of the results of these experiments is an important one. They show the advantage the surgeon will gain in employing the

*A Paper read before the Physical Society, February 14th, 1912.

patient's own tissues in all transplantations, and the slighter hope of success if tissues from another individual are used, and they re-inforce the warning already often given by surgeons as to the danger of allowing cancer cells to be disseminated about the wound at the time of operation, and the overwhelming probability that recurrence will follow on such dissemination. On the other hand, they show the relatively insignificant danger these cells present for other individuals, even when introduced under the most favourable conditions, and negative the theory that implantation of cancer cells from one individual to another plays an important part in spreading the disease. The probability of the existence of local foci of infection, such as cancer houses, which has been opposed on statistical grounds, can also be opposed on the strength of the experiments briefly detailed above, which show that any transference of the disease by means of tumour cells from one individual to another under the conditions postulated by the theory of cancer houses is almost, if not quite, impossible.

When first a graft is inoculated from a tumour-bearing mouse into a normal mouse, some of the cells of the graft die and are carried away by a process of phagocytosis. If the graft fails to take, this process of phagocytosis continues, and completely disposes of the tumour cells. If, on the other hand, the result is successful, the presence of the living tumour cells acts as a stimulus to the growth of the connective tissue cells of the host, and these proliferate and grow into the substance of the graft, and form the stroma of the resulting new tumour. It is the presence or absence of this reaction on the part of the connective tissue of the host that the success or failure of the grafting depends. In a certain number of cases in various strains of mouse carcinoma propagated in various laboratories, this connective tissue reaction has been so vigorous that the connective tissue cells have themselves taken on the malignant form of growth, with the production, at first, of a mixed sarcomatous and carcinomatous growth, ending usually, though not quite invariably, in a tumour which, on subsequent propagation is a pure spindle-celled sarcoma, which in its power of infiltrating the surrounding tissues, its recurrence after incomplete operative removal, and its tendency to form metastasis, especially in the lungs, shows all the signs of malignancy. In a few cases, however, the tumour has been propagated as a mixed tumour, with occasional reversion to the pure carcinomatous type. The reason why the connective tissue cells of the host thus assume a malignant character is probably to be found in the continued and prolonged irritation produced by the presence of the carcinomatous cells, but why this effect should be so rarely produced it is at present impossible to say; but the fact remains that we have here an example of the experimental production of a malignant growth, an occurrence in itself of great theoretical importance.

The tumour, however produced, exercises great influence on its host. At first, in the case of young animals, there is some reason for believing that the host increases in weight, apart from the weight of the tumour, more rapidly than does a normal animal of the same age. This stage, however, lasts only a short time, and as the tumour increases in size, the body weight is stationary or decreases. Study of the respiratory exchange in rats and mice with tumours shows that when the tumour reaches a large size there is no longer any storage of fat in the tissues. All the nutritive material that the animal can absorb is required to satisfy the growing needs of the tumour, and there is no surplus left for the formation of fat; further, as the nitrogenous metabolism of the cells of the tumour is less than that of the tissues of the host, a relation comparable to that which exists between the tissues of the fœtus and the maternal tissues, the tumour gains more easily than does the host. The result is that as the tumour grows, the host wastes, and at last a point is reached when the host's tissues are no longer able to perform their necessary functions, and death results, hastened, perhaps, by the presence of metastases in vital organs such as the lungs.

Another result produced by the presence of the tumour is an alteration in the blood. The tumour is a parasite preying upon the host, but in spite of this fact there are indications that in some cases at least the animal makes some effort to meet the needs of the tumour by increasing both the volume of its blood and the total amount of its hæmoglobin. This stage, however, does not last long, and eventually an anæmia results of greater or less severity. At first the anæmia tends to be of the chlorotic type, with considerable increase in the volume of the blood and but little alteration in the total amount of hæmoglobin. This is followed by a decrease in the total hæmoglobin, though the animal, by pouring immature cells into the circulation, attempts to make good the deficiency; finally, a condition is produced resembling pernicious anæmia, with a very low hæmoglobin total, and only a moderate dilution of the blood or even no dilution at all. When this stage is reached the animal dies very quickly.

Such is, briefly, the picture presented if the transplantation is successful. Not infrequently, however, the tumour, after growing for a time successfully, is spontaneously absorbed and disappears. Such an occurrence is exceedingly common in certain strains of tumour, and the proportion of cases in which it occurs varies in the same strain from generation to generation. Indeed, certain strains which at one time grew freely with possibly 100 per cent. of successes on inoculation have been lost altogether owing to the fact that on subesquent generations spontaneous ab-

sorption has occurred in every case. In a word, the power of growth of a tumour varies widely from time to time, and "negative phases" of growth are common. It is, however, to be noted that such spontaneous absorption, while very common in transplanted tumours, is very rare in spontaneous new growths, one of several facts which emphasize the caution necessary in arguing from the one to the other. Still, a few cases of the absorption and disappearance of spontaneous growths in mice have been observed, and the rarity of its occurrence may be compared with the great rarity, though undoubted occurrence, of the absorption of spontaneous tumours in man.

When, in the case of a transplanted tumour, such absorption occurs, the animal becomes more or less immune to the subsequent inoculation of the same type of tumour, but to a less degree, or not at all to inoculation of cells from a tumour of a different type. It is, however, very important to note that animals so immunized may subsequently develop a spontaneous tumour, so that the immunity is not an immunity to cancer in general, but only to the growth of tumour cells of a certain definite kind. It is, however, possible to produce general immunity to the growth of *transplanted* tumours, though not to the development of spontaneous tumours. If a mouse be inoculated with an emulsion of mouse embryo skin, or with mouse blood, immunity to transplanted tumours results, and it has even been found that the removal of an animal's spleen by operation and its subsequent inoculation in the form of an emulsion into its original owner, produces immunity to the subsequent inoculation of tumour cells. The immunity so produced is not a local immunity at the site of injection of the emulsion, but affects all the tissues of the body. Certain precautions as to dosage have to be observed, and, above all, the tissue must be obtained from an animal of the same species. Inoculation of rat tissue into the mouse, or vice versa, produces no immunity. The immunity so produced is due to a paralysis of the chemiotactic powers of the inoculated tumour cells, as the result of which they fail to elicit the connective tissue reaction in the host which is necessary for the subsequent growth of the tumour. On the analogy of the effects of the injection of bacteria or bacterial toxins, it might have been expected that changes would be found in the properties of the serum of the immunized animal. No effect, however, can be obtained in vitio with the serum of animals so immunized with homologous tissue or tumour substance which is not possessed in an equal degree by normal serum, and no antibodies can be detected which are transferable from one individual to another.

When first the discovery was made of præcipitions and hæmolysins, and of specific antibodies such as spermatotoxin and hepatotoxin, produced by the injection of spermatozoa and live cells, attention was naturally directed to the bearing of such researches on cancer, and hopes were aroused that it would be possible to produce a specific antibody for cancer cells. These hopes, however, have not been fulfilled, and subsequent researches have undermined the hopes on which they were based. It is true that by inoculation of spermatozoa or live cells into an animal it is possible to endow the serum of the animal with the power of destroying spermatozoa or live cells in vitio, but such sera are without action or, at any rate, without specific action in vivo. (A possible exception is to be found in the gastrotoxic serum produced by the inoculation of gastric mucous membrane, by means of which it is possible to produce gastric ulcers experimentally.)

To quote some remarks of Dr. Bashford: "With regard to cancer, the sera obtained from animals of one species after immunization with the tissues of malignant new growth of another species have no reaction in vitio distinguishable from the well-known hæmolysin and præcipition reactions. The reactions of an anticancer serum obtained by immunizing one species with the cancerous tissue of another species are in all respects parallel to those by which blood relationship has been established, and are equally subject to limitations of their action in vivo. It may be stated with confidence that all claims to influence the growth of cancer by any such anti-cancer serum are based up to date on fallacies of one kind or another."

The present position, then, is that it is possible to render an animal resistant to the inoculation of cancer with a high degree of certainty. If, however, the animal is already suffering from transplanted cancer, it is difficult to influence the growth of the tumour in the direction of causing it to disappear by any of the means that are successful in producing immunity in the normal animal, and the attempt to do so is usually unsuccessful; moreover, it is usually impossible to render such an animal immune to the implantation of a second tumour. Still, some success has been attained in both these directions, and the indications point to further successes as greater experience is gained. The importance of such success is great, as these secondary implantations may be regarded as artificially produced metastases, and the problem bears close relations to that of the prevention of dissemination when the solution is found. It will probably throw light on the immunity reaction occurring in mice with spontaneous tumours, for that such a reaction exists is shown by the fact that natural absorption occurs in the case of such tumours, though the event is very rare.

The question of the influence of heredity on the development of cancer in the offspring of cancerous ancestry has long been the subject of investigation, but there are so many interfering circumstances and sources of possible fallacy to be taken into account, that no satisfactory conclusion has yet been reached. The long span of human life and the impossibility of

controlling human mating have rendered the problem almost impossible of solution, but the presence of spontaneous cancer in animals has put another aspect on the case, and has allowed of this use of the experimental method of attack.

Naturally, the amount of work required has been very large, and it is only recently that Murray has been able to publish the results of five years' breeding experiments carried out on mice in the laboratories of the Imperial Cancer Research Fund. As it is useless to assume the absence of cancer in the family history of any animal, all the animals employed were of known cancerous ancestry, and excessive in-breeding was prevented by the introduction of fresh cancerous stock from time to time. The preponderating form of cancer in mice is carcinoma of the female breast; therefore, the enquiry, which is still in progress, has so far been limited to females. The figures have been carefully analysed and examined by the methods usually applied to statistics, and the conclusion Murray arrives at is that "female mice on whose ancestry cancer of the mamma has occurred not farther back than the grandmothers are distinctly more liable to develop the disease spontaneously in this organ than those in whose ancestry cancer is more remote. The increased liability is probably of the nature of a predisposition of a particular tissue or organ-system to undergo transformation under the wear and tear of life. The differences between the two groups are apparent at all ages, and the age of maximum incidence," which is relatively the same in the mouse as in man, "does not appear to have been lowered in the predisposed group. The magnitude of the difference is such that it cannot be accounted for by the chances of random sampling."

The question as to the causation of cancer is still unsettled. Ross' experiments, if confirmed, would indicate that the cause is to be found in a filter-passer, but the wide distribution of the disease among all the races of mankind, and its prevalence throughout the vertebrate kingdom, are against any parasitic cause. Further, the fact that the disease can be transmitted by inoculation only from animal to animal of the same species is one without parallel in the known forms of bacterial infection. That cancer follows closely on prolonged chronic irritation has long been known, and several striking examples have lately come to light. Epithelioma of the abdominal wall is practically unknown in Europe, but it is found frequently in the inhabitants of Kashmir, and follows the burns in that region of the body which are due to the common practice of carrying a small portable warmer pressed close against the skin of that part. Another instance is the epithelioma of the inner wall of the cheek which results from the sucking of a plug of betel-nut by certain of the races of India. Recently Haaland has described a form of nodular hypertrophy of the mammary gland of the mouse, the structure of which passes by insensible gradations into that of cancer. He connects it with the presence of hematode worms which are exceedingly common in the mammæ of old mice, and induce chronic inflammatory changes passing on to this condition of nodular hypertrophy. The worms are rarely found elsewhere in the body of the mouse, and when it is remembered that mouse cancer is, in 90 per cent. of the cases, a cancer of the breast, it is highly probable that there is a close connection between the presence of a worm and its resulting chronic irritation and the subsequent development of a tumour.

It is not my intention to discuss the recent discoveries put forward as aids to diagnosis, such as the increase in the alkalinity and other properties of the blood or the method of complement duration. While they are of some interest, they are not sufficiently trustworthy to displace the microscope as the final court of appeal in doubtful cases.

Nor was it my intention to recall methods of treatment, but recently a paper has appeared by Wassermann, Keysser, and Wassermann, which has attracted wide attention. These workers, wishing to study the vitality of carcinoma cells in the serum of healthy and sick persons, employed as indicators the compounds of sodium with tellurium and selenium. It is known that in the presence of living cells these salts undergo reduction and deposition in the form of a black or red precipitate. They found that the salts only affected the epithelial cells of the tumour, leaving the stroma untouched. This observation led them to inject the salts into the circulation of cancerous mice in the hope of being able to destroy the tumour, leaving the somatic cells untouched. The results were negative, but it was found that by combining selenium with eosin, a selective action was produced on the tumour, which necrosed and was absorbed, leaving the somatic cells unaffected. The compound is, however, highly toxic, and, further, if the tumour cells are destroyed and absorbed too rapidly, death follows, presumably from toxic absorption. So far, after a tumour has been completely absorbed, no recurrence has been noted, and the animal remains well, but the number of experiments has been few. The reaction affects both spontaneous and experimental tumours, and the type of tumour is apparently of no matter. The authors are on the guard against drawing premature conclusions from their experiments as to the treatment of cancer in man, but consider that their results are full of promise. It is obvious, however, that much work is necessary before any definite application of the method to human cancer can be made, and in view of past history, any premature hopes are to be strongly deprecated.

Such, then, are briefly some of the more recent advances in the research into the nature of cancer. Apart from the hopes they justify, that the problem will eventually yield its secret to patient and persis-

tent effort, the results already attained are of the greatest biological interest. It has been shown that in the cancer cell we have an indicator which is so delicate that it can reveal differences between individuals of the same species, age and race, differences so slight that they cannot be indicated by any other method. Further, when we remember that the life of a mouse is at most three years, and that a single strain of tumour has now been growing in mice for nearly ten years, it is obvious that the cancer cell has powers of growth different from those of the cells of any other tissue, in that they are practically unlimited. These two new ideas are bound to exercise a profound influence on biology in general, and the new conceptions they introduce and the new light they will throw on many questions are in themselves sufficient to justify all the labour that has been spent on cancer research, apart from any promise they hold out of the discovery of some means of controlling one of the greatest scourges that has ever afflicted the human race.

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

"Refractions" in General Practice.

Dear Sir,—As a general practitioner who took the trouble to gain a knowledge of the above during a six months' interval between leaving one practice and obtaining another, I can give my experience of the result, and I regret to say that it is not nearly so favourable as one would have expected. I find the knowledge I gained is of much use to me in many ways, especially in diagnosing the cause of headaches, and I do not have to send my cases away to have their eyesight tested. But the pecuniary result is most disappointing. There seems to be an idea among the public that to obtain satisfactory spectacles it is almost essential to go to an optician, an eye hospital, or a specialist. That a general practitioner can do this sort of thing never seems to enter their mind.

I am constantly meeting instances among my own patients in which recourse had been had to a well-known Eye Hospital about 20 miles away where they have procured spectacles for cases of simple hypermetropia without having any idea that they could have got the same treatment near home from their ordinary medical attendant. In a country district such as where I practice, the cases needing spectacles are not large in number, and I question whether, even if all one's own patients were to come for treatment, it would bring in anything more than a few guineas per annum.

If the suicidal jealousies among medical men were not in existence, and a practitioner who did not understand "refractions" would send all his cases to his neighbour who did, the result might be better for both. But under the present keen competitive conditions very few practitioners are so magnanimous, and I have never yet had a case sent to me by my neighbours. They prefer to send people, even of good position, to a hospital.

Even in school cases where defective eyesight is diagnosed, the invariable rule is to advise them all to go to a hospital. The County Council engages a school medical officer, who is called an ophthalmic specialist simply because he can do "refractions." You never hear of the Education Authority encouraging general practitioners to treat refraction cases. And so the general practitioner is deprived of another possible source of income.

I went to the expense of purchasing a set of trial glasses for eleven guineas, had electric light fitted for retinoscopy, dark-room, test-cards, etc., etc., and in five years I have had about 120 cases. Most of them were poor people, and one could only make a small charge, and my reward, so far as money is concerned, has been very insignificant. In fact, were it not for the satisfaction it gives from a general professional standpoint, I should be tempted to say that if one is going to be a general practitioner, the six months necessary to obtain any proficiency is waste of time and that the game is hardly worth the candle.

I am gradually coming to the opinion that it is far better for such a highly technical and complicated speciality to be done by men who are in constant work at it, and it would be well if there were more medical men who could devote their whole time to such work as "refraction" in conjunction with something else that would not bring them into competition with other practitioners in the neighbourhood, so that these would send all their eye cases to them instead of flooding the Out-Patient Departments of hospitals.—Yours truly,

ARTHUR E. LARKING.

Buckingham.

Dear Sir,—As a G.P. who has done pretty well out of ophthalmic work, I may give my views for what they are worth on the question of "Refractions in General Practice." It is utterly absurd to talk about adding "at least a couple of hundred pounds to his annual income." Given a good man in a country town, or large town of a hundred thousand inhabitants, with no ophthalmic hospital within 30 miles, and no eye specialist coming to his town twice or thrice a week, it might be done. But where do such circumstances exist?

Remember that the optician in the High Street will send a circular to every house within ten miles, advertising "testing free," at the same time charging twelve and sixpence for glasses that cost two and sixpence, and two guineas for presbyopic glasses that cost him seventeen and sixpence. Your own patients will go to him every time—"just for a pair of strengtheners"—or they will tell you truly that they "had no idea you did sight-testing," and this after you have been pegging away for, perhaps, five years.

Then, again, it has become the fashion in the part of the country where I live for junior eye specialists to come out from their centre to two or three towns within reach two mornings or afternoons a week in each. The brother G.P., who is kind over anæsthetics and otherwise friendly, will not send his refraction cases to a fellow G.P. when an equally good man (to put it mildly) who is not an opponent is to be had for the same fee.

The refractions in your own practice will amount to very few yearly. Where are the cases to come from? It amounts to this. If a man takes up eye work thoroughly, and knows it well enough to hold his own with most of the specialists of the nearest big town, he will get a fair amount of work amongst the class of people who cannot afford guineas, but can afford half-guineas. He will get a few people who do not know of him as a G.P., who call him a specialist, and who part with the usual fee of a guinea with pleasure. He will get a certain number of eye cases of various kinds that will very likely bring in more than the refractions, but if he starts practice now, with specialism what it is, he will have to be very smart to make a hundred a year in five years' time. That is worth doing certainly. Eye work is clean work, with no night calls, and it is a great sop to one's vanity to be able to do what, perhaps, none of one's opponents in general practice are able to do.—Believe me, Yours truly,

DOUBLE CONVEX.

Dental Appeal.

Dear Sir,—May I direct your attention to an appeal which was made at the Annual Dinner of the Guy's Hospital Dental Society for help in equipping the recently enlarged Conservation Room with dental chairs of the best make and the most modern pattern.

So generous a response has already been made that the Dental Staff have been encouraged to extend the appeal to all former students of the hospital in the belief that there must be many who were unable to be present at the Dinner who would yet wish to have an opportunity of helping their Alma Mater.

Since its foundation in the year 1889, the history of the Dental Department and School of Guy's Hospital has been one of steady progress. The present buildings were erected in 1892.

In 1909 the Out-Patient Department of the Hospital was re-built, on the first-floor of which is placed a series of admirably adapted and equipped Extraction Rooms.

The work done in the Conservation Room has grown with each year, until in 1911 the attendance of patients for conservative treatment alone reached 33,460, and our present accommodation is insufficient to meet this demand. To overcome this difficulty, the entire building, formerly housing both the Chemical and Dental Laboratories, has been taken over by the Dental School. Additional stories have been erected on the north and west sides, permitting an extension of the Conservation Room, so as to include all four sides of the central courtyard, thus affording room for upwards of 100 chairs. By the addition of two stories to the Medical School buildings space has been found for the erection of new Chemical and Physical Laboratories, which have been fitted and equipped to satisfy all requirements. The estimated cost of the whole of these alterations and additions, with equipment, is about £20,000, the greater part of which will be a charge upon the Medical and Dental School Funds, but for such proportion of the total sum as is concerned solely with the treatment of patients, as distinct from educational purposes, the Hospital would desire to bear its proper responsibility, and it is for help in this direction that we appeal to past and present students of our Dental School.

It only remains, at the present time, to decide with what type of chair the new Conservation Room shall be equipped. It is obvious that, while for the patient it is no small benefit to place at his disposal all the most modern appliances designed for his comfort and relief, for the student of dentistry it is almost imperative that his work should be carried out with the best possible equipment. The provision of 80 chairs of high standard, which are immediately required, would place a very severe tax upon the resources of the Charity; for that reason the occasion has been thought suitable to make an appeal, addressed especially to former pupils of the Dental School, for money to equip the Conservation Room with chairs of the best possible construction.

The cost of each chair is estimated at £15, and cheques for this or for any less amount will be gratefully acknowledged by the Treasurer.

It is intended to commemorate, by means of a suitable tablet on the walls of the Conservation Room, the names of all those who contribute a sum of £5 and upwards, or collect that amount amongst their friends, other than Guy's men. Donors of £15 may, if they prefer, give that amount in two, three, or five annual instalments.—Believe me, Yours faithfully,

HERBERT L. EASON,
Dean.

PRELIMINARY LIST OF SUBSCRIBERS.

The following have already promised or given donations to this Fund :

	£	s.	d.
F. Newland-Pedley, Esq. (one chair) ...	15	0	0
*A. C. Achner, Esq. (one)	15	0	0
H. P. Aubrey, Esq. (one)	15	0	0
*S. W. Charles, Esq. (one)	15	0	0
Ernest B. Dowsett, Esq. (one)	15	0	0
Montagu F. Hopson, Esq. (one)	15	0	0
J. B. Parfitt, Esq. (one)	15	0	0
J. Lewin Payne, Esq. (one)...	15	0	0

F. J. Pearce, Esq. (one)	15	0	0
H. L. Pillin, Esq. (one)	15	0	0
R. Wynne Rouw, Esq. (one)	15	0	0
Norris Snell, Esq. (one)	15	0	0
The Zahnleiste Club (one)	15	0	0
J. A. Bowes, Esq. (half)	7	10	0
H. P. Fenn, Esq. (half)	7	10	0
G. W. Holloway, Esq. (half)	7	10	0
J. Roberts, Esq. (half)	7	10	0
R. Roberts, Esq. (half)	7	10	0

* Payable in three instalments.

Reviews, etc.

Practical Anatomy: the Student's Dissecting Manual. By F. G. Parson, F.R.C.S. Eng., and William Wright, M.B., D.Sc., F.R.C.S. Eng. In two volumes. Pp. 467 and 382, with 332 figs. (London, Edwin Arnold, 1912.) Price 8s. 6d. each volume.

It is as bad for a book, as it is for an individual or an institution, to be without a rival. Cunningham's Practical Anatomy has been so long in this position that we were glad to hear that another book on the same subject was to be put on the market.

It is written by Messrs. Parson and Wright, and we can congratulate them on the success of their undertaking. The book is eminently practical: here you will find no descriptions of minute slips of muscle nor subdivisions of ligaments into many small portions. Rather are you shown a way about the body, and how to find all the various structures in it. Any student who uses this book conscientiously in his dissection should have no difficulty in understanding his text-book when he reads it. The book is not meant to be read alone, it is a dissecting manual for use in the room, and must be supplemented by the larger text-book in the privacy of the study. It is impossible without trying them to say whether the ways in which the body is dissected are better than those we know. One thing we see with delight—the dissector of the abdomen is made to work while the body is prone, and is given a special dissection of the kidney from behind, a practical exercise which should make operations on that organ clear to him.

We do not mean by this praise that we have no criticisms to raise, but they are on minor points only, and can easily be eradicated in another edition.

At the beginning are some valuable hints on dissecting, and especially is the use of the pencil advocated. We fear this is more a question of fashion than of precept, and here it is not the fashion at present to draw.

Altogether, we hail this book as an attempt on the part of two teachers to tell the student what he must learn and, above all, how it should be learnt, by practice and observation.

From the Gazette's Special Pathologist.

H. M., Clacton-on-Sea.—This specimen of Sputum contains but little muco-pus, and Tubercle Bacilli are not detected.

PATHOLOGIST.

Sport.

Rugby Football.

GUY'S v. LONDON.

Cup Tie Final.

Once again the final game has come and gone, leaving the Cup with Guy's for the fifteenth time and for the fourth consecutive season. It was a very hard game at Richmond on March 7th; the pace and tackling were terrific. It was very hard on W. S. Stranack and O. Parry-Jones that they should be unable to play. The former was ill, and the latter convalescing after injury. Both have turned out on every possible occasion all through the season and done their duty manfully. It was, therefore, doubly hard that the Hospital should not have their valuable assistance in this the game of all games. Anyhow, it was pleasant to note that they were well enough to go to Richmond and witness the victory.

It was not, as the final score will show, a high scoring game—2 tries to 1 try, 6 points to 3, was the margin. It is very difficult indeed for the players, surrounded as they are by an atmosphere of intense excitement, to produce their highest form, but both teams, for all that, did remarkably well. There were mistakes and there were many flashes of brilliance. All played as well as they were allowed to; the marking was splendid, the tackling deadly.

Guy's were over-run for the first few minutes, then play settled about midfield, from where Pritchard got Stokes away. Stokes ran to Hopkins and cross-kicked, Adams touched the ball as it passed him, and Medlock, who was thereby put on side, seized on the ball for the first try. Stokes kicked the ball between the posts, but a London man just got his fingers to the ball, therefore the goal became void. Almost immediately after, three Guy's men charged Hopkins' kick down behind London's goal line, but Hopkins fielded the rebound and saved a further score. Not many minutes had elapsed before Palmer and Lilley took play close to Guy's line, where Hartgill forced his way over for an unconverted try. Scores were level at half-time.

Guy's restarted very strongly. Millett got away well, but an inside pass to Anthony was too low to be accepted. Pritchard paved the way for a great dash by Stokes, while Medlock was almost in, a tackle right on the line saving London. However, the winning points came through Roberts, who got over after some tight work. Stokes made an excellent shot, but the wind carried the ball wide. London now became aggressive; Morriss was playing a good game, while Morton and Whyte did all that possibly could be done in the rushes. Just before the end, Palmer, Lilley, and Adams were concerned in some good passing, but though Palmer got over, the touch judge had already raised his flag for touch. Towards the end Guy's resumed the upper hand, but nothing more was scored, and a good game ended as stated. Team:—

Guy's.—H. Lee (back); A. L. Stokes, G. B. Pritchard, A. H. Harkness, H. Millett (three-quarters); J. E. Davies, C. H. Medlock (captain), (halves); C. S. L. Roberts, R. S. Kennedy, A. V. Moberley, V. Glendining, H. Daw, A. L. Liebson, A. H. Anthony, A. B. Danby (forwards).

REMARKS.—Heartiest congratulations. I am afraid this is the last final that H. Lee will take part in. He can look back upon it with satisfaction. His display was a great finish to a great career. Halves and three-quarters played well. Davies made a splendid debut. Medlock showed himself a great opportunist. He was always up with the ball and exhibited untiring energy. The forwards have never heeled better. Daw and Anthony were offside occasionally, but they had to break up smartly and get among the opposing backs, their commendable keenness put them "offside." Roberts was the best forward on the field, ably backed up by Kennedy whose work from the line out was one of the features of the match.

Association Football.

GUY'S v. BART.'S.

HOSPITAL CUP—FIRST ROUND.

In the first round, after a tough game, played in a quagmire at Winchmore Hill on February 8th, the Hospital beat Bart.'s, last season's winners, by 3 goals to 1, and deserved their win in every way. Much spirit was shown by both teams, who played in regular cup-tie style, but the Hospital forwards were smarter in front of goal than Bart.'s, and if anything the Hospital backs were surer on the day's play than the opposing pair. Team:—

GUY'S.—Rhys Evans (goal); Keer, Neale (backs); Peregrine, Kyle, Neely half-backs); Spong, Coxon, Veale, Stebbings, Bevis (forwards).

GUY'S v. UNIVERSITY COLLEGE HOSPITAL.

HOSPITAL CUP—SEMI-FINAL.

The first ten minutes of this game, at Chiswick, on February 22nd, looked as if the match were going to be evenly contested, but almost without warning the University team went to pieces, lost Henderson and Vlasto through injuries, and were badly beaten by ten goals to love. After the first burst on the part of the University the game lacks description, as Guy's were in front of goal for practically the rest of the game. Bevis and Veale both did the hat trick, and the two insides shared the other goals. The Hospital now meet Thomas's in the final on March 13th.

GUY'S.—Rhys Evans (goal); Keer, Neely (backs); King, Kyle, Neale (half-backs); Spong, Coxon, Veale, Stebbings, Bevis (forwards).

GUY'S v. LONDON COUNTY & WESTMINSTER BANK.

SURREY CHARITY CUP—SECOND ROUND.

In the second round of this competition, on January 27th, Guy's won by 3 goals to 2. The game was played at Norbury on a ground practically under water, and the Hospital fully deserved their victory, which, given better conditions, they would undoubtedly have won by a larger margin, as the forwards especially were in great form, and the remainder of the team played well above their average. Both Bevis and Spong played particularly well, and the shooting of Stebbings and Veale excellent considering the state of the ground. Team :—

GUY'S.—Rhys Evans (goal); Keer, Neely (backs); Gill, Kyle, Peregrine (half-backs); Spong, Coxon, Veale, Stebbings, Bevis (forwards).

GUY'S v. OLD CRANLEIGHANS.

SURREY CHARITY CUP—SEMI-FINAL.

Townley Park, Old Cranleighans, and Guy's were now left in the above competition, and the draw resulted in Townley Park obtaining a bye and the Hospital having to play Old Cranleighans (holders) in the semi-final.

The tie was played at Malden on Saturday, February 24th, and the Old Cranleighans just got home after an exceedingly fast and spirited game by the odd goal in seven. The game from start to finish was played at a tremendous pace on a ground dry and almost like a billiard table in its smoothness and evenness. Veale secured all three goals for the Hospital and played his best game this season. The remainder of the team played well, but the Old Boys were just one better all the time. Team:—

GUY'S.—Rhys Evans (goal); Keer, Neely (backs); Peregrine, Kyle, Neale (half-backs); Spong, Coxon, Veale, Stebbings, Bevis (forwards).

UNIVERSITY CUP.

After the preliminary round, in which Guy's beat Royal College of Science by 5 goals to 4 at Honor Oak Park, the Hospital successively beat King's College in the first round by 4 goals to 1 at Wood Lane, and the Goldsmiths' College at Honor Oak Park by 8 goals to 3 in the semi-final, and thus enter the final v. Thomas's.

Births.

HUGHES.—On March 3rd, at 26, St. Thomas's Street, S.E., the wife of E. C. Hughes, M.A., M.C. Camb., F.R.C.S. Eng., of a son (still born).

SPRIGGS.—On Sunday, March 10th, at 39, London Road, Leicester, the wife of N. I. Spriggs, M.D., B.S. Lond., F.R.C.S. Eng., of a son.

Marriages.

ALDIS–CUMMINGS.—On February 10th, at the Parish Church of Twickenham, by the Rev. Prebendary Prosser, Allan Walter Aldis, L.D.S. Eng., of 338, Upper Richmond Road, East Sheen, S.W., to Joan, youngest daughter of Mr. and Mrs. S. Cummings, and sister to A. R. Cummings, L.D.S., of Mendip Lodge, Twickenham.

PROUD—GIBSON.—On 28th February, at St. John's, Upper Holloway, by the Rev. W. Stephens Muntz, D.D., LL.D., Percy James Proud, L.D.S. Eng., of Pemberton Gardens, youngest son of Charles James Proud, of Totteridge, Herts, to Jane Gibson, youngest daughter of Andrew Gibson, of New Southgate.

Death.

LUCAS.—On 2nd March, at 50, Wimpole Street, W., suddenly, Kathleen Emma, the dearly beloved wife of Richard Clement Lucas, B.S., F.R.C.S., and daughter of the late Surgeon-General Saville Marriott Pelly, C.B., F.R.C.S.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 620.] MARCH 30, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	121–123
Goblins' and Contemporaries' Clubs ...	123
Change of Address	123
The Enzyme Treatment of Cancer, etc. ...	124–126
Papers by Guy's Men	126
Guy's Hospital Debating Society	126–127
Correspondence	127–128
The Treatment of Some Varieties of Diarrhœa and Vomiting in Infants. Clinical Lecture by Dr. Cameron	129–133
Guy's Hospital	134–135
The Diagnostic Uses of the X-rays in Dentistry	135–136
A Wail of a District Nurse	136
The late Professor A. H. Young, LL.D., F.R.C.S.	137
List of Books Received in the Wills' Library since 1st June, 1911	137–138
Appointments	139
Sport	140

Passim.

IT is with the most profound regret that we have to record the death, on the same day, Sunday, March 24th, of two members of our nursing staff. Nurse Evelyn Spenceley entered as a probationer in November, 1907, was Head Nurse in Patience and Samaritan Ward, and, after her three years' training, joined the private nursing staff of the Guy's Institution in February, 1911. Nurse Florence Jagger entered the Hospital in April, 1910, and was therefore just completing her second year of training.

NOT often, but still too often, when death snatches from our ranks those who are working with us in the Hospital, we are reminded of the dangers which men and women who devote themselves to the cult of healing must always be prepared to face. No epitaph could be more full of sad and tender meaning than the simple phrase of that touching memorial in our chapel: "To the memory of those who have died in the medical service of this Hospital."

ON Saturday, March 16th, the Hospital was honoured by a visit from their Majesties the King and Queen. The last occasion on which King George, then Prince of Wales, visited Guy's was in February, 1909. His Majesty's interest was very generally appreciated, and it is hoped that a shorter time will elapse before he is again at Guy's, since these royal visits are so very valuable in awaking and maintaining the interest of the general public in the work of the Hospital, as well as gratifying to the patients and nursing and medical staff. Their Majesties' visit last week was of quite an informal character, and was known beforehand only to the officials concerned, so that it came as a pleasant surprise to the patients. Accompanied by the Treasurer, the Superintendent, and the Matron, the royal visitors made a tour of the Hospital, including the new operating theatres and other recent additions, and they displayed much interest in, and appreciation of, what they saw. We hope that the arduous duties of our King and Queen may spare them in the future many opportunities of revisiting Guy's.

ON March 9th, at a representative gathering at Croydon General Hospital, an event of pecular interest to old Guy's men took place. A presentation was made to Mr. Henry Horsley (Consulting Surgeon to the Croydon General Hospital), by Sir Frederick Edridge, on behalf of the Committee, the past and present staff of the Hospital, and numerous friends and admirers. The presentation, which consisted of a silver salver, an album of names, and a cheque for £300, was to celebrate his 50th year of active practice in the town. Mr. Horsley entered Guy's in 1856, and dressed to Mr. Birkett, so he is quite a link to the historic past of Guy's. He is, we understand, the oldest subscriber to the GAZETTE.

WE would draw the attention of those of our readers who have to do with the Out-Patient Department to a recent article in the *Clinical Journal* by Dr. Batty Shaw, on the notification of pulmonary tuberculosis. The present orders of the Local Government Board, with regard to compulsory notification of phthisis, have imposed a new duty on many of us, the bearings and importance of which are, perhaps, not fully recognized. It is an easy thing to fill up the requisite notification forms, and an easier to receive the appropriate fee in due season, but the performance of this function sets in motion a complicated State machinery which has widespread results and needs consideration, both from the standpoint of the patient and the community. Dr. Batty Shaw contends strongly that it is unjustifiable to notify any case of pulmonary consumption unless tubercle bacilli have definitely been identified in the sputum. With this conclusion some may disagree, but Dr. Shaw supports his views with practical instances which deserve careful consideration.

APART, however, from discussion of the basis upon which the final decision to notify should rest, it is of interest to consider the effect of that notification. By it the patient is brought into direct connection with the health authorities of his district, and he is made to feel himself specially signalled out for notice by the State. In many cases this is a privilege which he does not enjoy, for, in the case of landlord and tenant, for example, there will often be difficulty when the former understands that he has a notified consumptive in his house, and is thereby liable to various duties in the way of disinfection. Thus the intrusion of the Public Health Authority often produces unexpected results to individual patients who may themselves be unaware that they are suffering from so serious a complaint. Such difficulties are, of course, no argument against notification, but they emphasize the necessity for having some definite clinical or bacteriological basis upon which to rest the necessity for notification. What that basis may be is necessarily a matter for individual judgment, but in Dr. Batty Shaw's article there is a valuable presentation of the main points required for decision.

THE whole subject of pulmonary tuberculosis is now thrust to the forefront of practical medicine by the marked attention which is being paid to it by the State. The Insurance Act provides large sums of money for the establishment of Sanatoria; a special committee has been appointed to deal with the problems involved, and the subject bulks largely in the public mind. Within the profession there are doubtless many who question the wisdom or necessity for such measures, and some may think that the problems of the suppression and management of venereal disease are of more immediate importance to the community than those of phthisis. It will be long, however, before the public can be brought to view such questions from the medical standpoint and in the meantime we must utilise to the full the opportunities for health betterment so far afforded us. It will be increasingly necessary for individual practitioners to pay special attention to the various aspects of phthisis, and to decide for themselves upon a consistent and definite policy with regard to the disease. Incidentally, it is difficult to justify such special attention to one particular manifestation of tuberculous infection, and the comparative neglect of other equally serious forms of tuberculousis; but in dealing with the public it is as yet impossible to expect much either of knowledge or logic.

NEVERTHELESS, progress is being made in the right direction, and we must be thankful for even the smallest advance. Preventive medicine is establishing itself on a sure basis, and with it the chief hope of the future lies. What the effects on the rank and file of the profession may be it is impossible to forecast with more than speculation, but there can be little doubt that the average qualified man of the coming generation will often find the acquisition of a D.P.H. a more profitable investment than many a reputed valuable general practice. The influence of clerical priesthood is on the decline, the new medical priesthood of omniscient and

omnipotent Medical Officers of Health is commencing, and it is wise to note the signs of the times.

One of the changes which has been effected in the Operating Theatres since the new theatres have been built is in the keeping of the instruments. Mr. Coles, who for many years has been in charge of the instruments, has retired, and under the new arrangements the ordinary operating instruments will be kept in a room adjoining each theatre, while the special instruments will be kept together, and the whole will be under the care of Sister Theatres. Mr. Coles, who was so well known to generations of Guy's ward clerks, dressers, house-surgeons, yes, and surgeons, too, will carry with him into his retirement the good wishes of all those who have had to do with him at the Hospital, and will doubtless forgive the many jests which used to be made on the antiquity of his beloved instruments. His reminiscences of former surgeons, and the former days of surgery were always interesting, as he had lived through the beginnings of antiseptic and aseptic surgery.

The following appointments have been made, subject to the confirmation of the House Committee :— House-Physicians : N. Mutch (Dr. Hale White), A. Sandison (Sir Cooper Perry); House-Surgeons: A. Neville Cox (Mr. Symonds), A. J. McNair (Sir Alfred Fripp); Out-Patient Officers: F. G. Lloyd, G. Marshall, E. G. Schlesinger, A. H. Todd; Assistant House-Surgeons: H. P. Warner (Mr. Steward), R. Montgomery (Mr. Fagge), F. Cook (Mr. Rowlands), J. L. M. Symns (Mr. Turner), B. Blackwood (Mr. Hughes); Clinical Assistant in the Neurological Department: H. W. Barber; Clinical Assistant in the Throat Department: L. Bromley.

The following appointments in the Dental Department have been made subject to the confirmation of the House Committee:— Assistant Dental House-Surgeons: C. A. Achner, W. Adderley, J. W. Mayer; Clinical Assistants in Conservation Room: S. Hanreck, M. Fred Hopson, D. B. Morrish; Assistant Demonstrators of Dental Mechanics: A. J. Barber, H. Millett; Assistant Demonstrators of Dental Metallurgy: W. A. Bulleid, R. H. Rix.

We regret that owing to a mistake Mr. Stranack was referred to in our last issue as the captain of the Rugby Football team. Mr. Stranack is, of course, the able and energetic secretary who, with Mr. Medlock, the captain, did so much towards enabling Guy's once more to remain in possession of the Inter-Hospital Cup.

Goblins' and Contemporaries' Clubs.

At the Annual Dinner of these Clubs, held in conjunction on May 4th, 1911, Dr. A. E. Porter in the Chair, the following resolutions were passed :—

1. That these two clubs be for the future amalgamated under the name of "The Nineties Club."
2. That any registered medical practitioner, who entered upon his studentship in the years 1890 to 1899 inclusive, shall be eligible to become a member of the Club.
3. That only one meeting of the Club be held in the year.
4. That the Annual Dinner of the Club be held, other fixtures permitting, on the first Wednesday in May.
5. That election of a member at any Annual Dinner shall sanction attendance at the next.
6. That before each Annual Dinner a meeting be held for the election of a Vice-President, who shall take the Presidential Chair in the following year.
7. That Dr. Charles Edwards, of Bridport, be elected President of the Club for the year 1912.
8. That Mr. P. F. Henry and Mr. Laurie McGavin be elected Co-Secretaries of the Club.

Notification of the Annual Dinners will be sent to every member of the Club, but in the event of any member failing to reply for a period of three years, no further notification will be sent to such member, who will, however, still be reckoned as a member of the Club.

This year's Dinner and Meeting will be held on Wednesday, May 1st, at the Trocadero Restaurant.

Change of Address.

T. F. Brown, M.R.C.S., L.R.C.P., from New Norfolk, Tasmania, to Ingor Street, Ararat, Victoria.

C. J. Hinchcliff, L.D.S., from Westbourne, Selhurst Road, South Norwood, to Southbrook, 1, Princess Road, South Norwood, S.E., and 57A, Wimpole Street, W.

J. B. Howell, M.R.C.S., L.R.C.P., from 86, North Side, Wandsworth Common, to 35, Earlsfield Road, Wandsworth, S.W.

Horace Steinbach, M.R.C.S., L.R.C.P., from Guy's Hospital to Newton House, Knaresborough by Harrogate.

F. J. Steward, M.S., F.R.C.S., from 125, Harley Street, to 98, Portland Place, W. Telephone, Mayfiar 4124.

The Enzyme Treatment of Cancer, etc.

BY JOHN BEARD.

IN GUY'S HOSPITAL GAZETTE for February 17th, 1912, Mr. R. Assheton writes of this book that it "shows signs of haste in its preparation." Its history throws some light upon the truth of this. The preface and introduction were written in 1911, chapters I. to VI. in the six years from 1902 to 1907, chapters VII. to XII. (77 pages) in 1909 and 1910. That is, the writing of the total 298 pages occupied *nine years*, or at the alarming rate of 33 pages a year the book finally got itself completed.

In a letter to the writer Mr. Assheton speaks of his review as the acceptance of a challenge made in it, but, as a fact, not to be found in any of its pages. The only challenge made in it (page 240) was one to refute the thesis, from an examination of them in the polarimeter, that the albumins of cancer and of trophoblast were dextro bodies. The glove thrown down he avoids taking up. Even now the evidences of the truth of this thesis are decisive to anyone with an elementary knowledge of stereochemistry. Since it has been demonstrated more than once that *genuine trypsin* liquefies living cancer-cells, there is, with deference to my critic, nothing inconsistent in the two statements (on pages 244 and 238) contrasted by him. The dextro-rotary character of cancer albumins has been proved up to the hilt by the chemical method of the action of lævo-rotatory ferments upon them, and, as this single proof is decisive scientifically, the writer is under no necessity of also proving it in the polarimeter. If by any possibility I were wrong, this test in the polarimeter, scientifically made, would establish this. Hence the challenge, especially to those who have made the untrue assertion, after using inert ferments, that trypsin is devoid of action upon living cancer-cells.

There is no single argument or statement advanced in the review which is unanswerable, but, since at the moment no new edition of the book is under consideration, I do not know where such a full reply would be accepted and printed. The writer has asked Mr. Assheton for a second copy of the review, to be returned to him with all statements challenged underlined and with marginal notes. From such a copy he would see that there is really nothing in his "criticisms." Much of the review is quite beside the point, and many things in it are inaccurate. The time has long since passed when it was my object to convince others that my scientific findings and conclusions were right.

Mr. Assheton speaks in terms of high praise of some of my earlier memoirs, among others of that on "The Branchial Sense Organs of Fishes," published twenty-five years ago. In the last of his brilliant "Studies" (Der Trochlearis, Mitt. a.d. Zool. Station zu Neapel, vol. 18, 1907, page 180), the illustrious founder of the Naples Zoological Station, the late Geheimrat Prof. Anton Dohrn, also referred to this memoir on the branchial sense organs, stating that, probably correctly, I had drawn far-reaching consequences regarding these, but that the proofs adduced had not sufficed to overthrow the traditional conceptions. Praise of scientific researches is useless, for they are undertaken to advance science, and if their possible influences in this direction be set aside and ignored they might just as well never have been written. They were ignored upon publication, and practically no discovery of mine was accepted as true.

In 1906 I did make what I have—without egotism—regarded as my biggest find, that there was no generally recognised criterion for truth in embryology except human authority, and perhaps the accuracy of this find will not be denied. I do not now seek to convince Mr. Assheton, or anyone else, that the arguments advanced in the book are correct. My object is, and has been, *to convince the cancer that in the presence of active, not inert, ferments (trypsin and amylopsin) it could not survive, but that it must, of necessity, cease to exist*, as described on pages 174 and 175. In this the success has exceeded my most sanguine expectations, for in 1907, for example, I had little or no hope or belief that this enzyme treatment would be effective when directed against a "round-celled sarcoma," and a recurrent one to boot. If this treatment will cure such a deadly malignant tumour, and the evidences are open to inspection, although as yet no medical "authority" has expressed the slightest desire to examine them, then all the rest, direct development, somatic origin of germ-cells, hypoblastic nature of trophoblast, and other impossibilities do not matter a straw. Mr. Assheton and other embryologists may believe and argue about them as long as they like; I do not care. Under their impossible views cancer is, and it will ever remain, "an incurable disease"; under mine it is *a natural phenomenon*, which *has been cured*, and *can be cured always*. so long as the earth is habitable, by a proper scientific usage of Nature's methods. What, in the name of commonsense, is the use of replying to the criticisms of people who do not quote one's statements or views accurately, and with whose interpretations of the facts of development one has no sort of sympathy? Captain Lambelle has more than once in his letters expressed his regrets that Bainbridge's opportunities of treating a large series of cases of cancer were not possible to him. Now, every year nearly 40,000 people die of malignant diasese in England and Wales alone. There are plenty of large hospitals, and many connected with them who, if they chose, could find Captain Lambelle these opportunities. I should be content to leave my case in Captain Lam-

belle's hands and to stand quite aside, not even knowing anything about the cases he was treating. His treatment might be carried out under the supervision of a surgical or medical committee, the series of cases might be of any size, and the sole stipulations I would make might be that he should choose the cases he considered suitable for treatment, and that he alone should treat them as he saw fit. Some few of them would, perhaps, die of hæmorrhage or perforation, but all I know of him leads me to anticipate that he would succeed in curing at least 75 per cent. of the cases which he had himself chosen for treatment.

Should this prove to be anything like the truth, of what value would the abstract inaccurate criticisms of Mr. Assheton, or of anyone else, be? If I had until the end of time to do it in, I could never succeed in "convincing," by scientific arguments or researches, even a tithe of the "conservatives" of science. As to alternation of generations, I considered everything urged by Mr. Assheton years ago. Between him and me there is no common ground of agreement as to the facts of the cycle of animal life; nor am I alone among embryologists and cytologists in rejecting the views he advances at great length as to the reduction of chromosomes or "meiosis." Moreover, in animals this is followed by the production of gametes; in plants, of spores. As long ago as 1882, my teacher, Carl Semper, considered all this business of the chromosomes and the phenomena connected with them as so much waste of time in research, and I do not think, nor am I alone in this, that the position has altered much for the better since those days.

I do not admit Mr. Assheton's premises, many of his facts, or his conclusions. I know from my own observations that his statements regarding the activities of trophoblast during *the whole* of the gestation, in ungulates, for example, are false. I have never said at any time or anywhere that the trophoblast or phorozoon "gives rise to the primitive germ-cells." On the contrary, on page 126 of the book it is written "the germ-cells arose . . . in a direct line from the fertilised egg. They come into being upon the asexual generation or trophoblast." This is shown in the diagram facing page 124. Here it is seen that they do not arise *from* trophoblast. The point is in the necessity of a distinction between the words "from" and "upon." The latter, not the former, is the word used by me. I have never at any time argued, as Mr. Assheton thinks, that the *pilidium* "gives rise" to the nemertean, or the trophoblast to the mammal, or to germ-cells. As the diagram opposite page 124 shows, the germ-cells are in a direct line from the fertilized egg; they do not arise from either trophoblast or embryo. They are everywhere independent of both in origin, and, as I have insisted, germ-cells possess the potentialities of *either* trophoblast *or* embryo. Which of these a given germ-cell will produce depends upon circumstances: every germ-cell possesses the potentiality of unfolding in one of two enantiomorphously related directions. Of the germ-cells of my researches Mr. Assheton writes, "though why they do not all unfold as embryos is very mysterious."

I do not profess to have robbed life of its mystery, and it should be remembered that there is such a thing as the continuance of the race to be provided for. Certainly, by the blastoderm of the skate I do not "really mean" the yolk-sac. I have seen hundreds, if not thousands, of skate-blastoderms, far more than anyone else, dead or living, and when I speak of a skate-blastoderm, I mean such a thing. But why continue this profitless examination of Mr. Assheton's remarks? His remaining arguments are quite similar to those I have noticed.

One point of practical importance I must, however, notice. It concerns the introduction of amylopsin into the treatment. In the review it is stated that "in the earlier years" the use of this was "not recognised." If so, it was not my fault, but that of certain medical journals in this country. The ferments, especially trypsin, began to be employed extensively in cancer about the end of January, 1906. By April, 1906, I had discovered the import of amylopsin in the treatment. A short paper of about one column in length, or half a page, was written before the end of that month and sent to the leading organ of the medical profession in England for publication. It was not published here at any time, but in June, 1906, it appeared in the *Medical Record*, New York.

As a fact, at no time has anything about amylopsin in this treatment ever been published by the medical organs of this country. Within the last month or so I offered, whenever invited by the editor to do so, to write down for publication in a certain widely-circulated medical journal published in London, an account of what alone I regarded as the enzyme treatment of cancer. This offer was not accepted. I have done everything in my power in this matter of the scientific treatment of cancer in the face of much bitter opposition and at great sacrifices of time and money. Capt. Lambelle's success with the treatment in the case of the recurrent round-celled sarcoma Mr. Assheton admits, without examining the scientific evidences relating to the case. And I maintain—without real contradiction hitherto—that this case, upon which I have taken my stand, proves the truth of my theses. If Mr. Assheton thinks this case can be explained from start to finish in some way differently than I account for the origin, nature, etc., of malignant disease, he had better produce his explanation, and show that it is in every respect a scientific one. It would be advisable, however, for him to come here and examine the evidences for it in my possession for himself, and perhaps to see the patient, before doing so. But he can take it from one who has spent twenty-four years of his life upon researches dealing with alternation of generations, and who has no inten-

tion of trying to devote as many years more to a continuation of this study, that his explanation of this case will never be founded in such chimeras as direct development, somatic origin of germ-cells, hypoblastic nature of trophoblast, or the "emancipation" of the conjugated cell by "meiosis."

As I said before, I have no desire at all to convince my fellow-men that my embryological views as to the origin, nature, and scientific treatment of cancer are scientifically correct and founded. It is impossible to convince those who do not desire it. For me, it suffices that I have convinced the cancer. Of course, this has not been by the use of preparations, which were practically inert, or in some cases—even now—*nothing more than glycerine and water. But that is* another story. I do not suppose that Mr. Assheton, who, like myself, is "not even a medical man," would rely upon preparations for use in such a grave affliction as cancer simply because they were labelled "trypsin."

Mr. Assheton misses, indeed, the whole point of the book. This is *not* to discuss and settle whether his views or mine concerning trophoblast as a cytological or morphological thing are true or false, but whether or not cancer and trophoblast have a particular stereochemical composition, and especially whether or not the line of treatment of cancer by means of real pancreatic ferments, after the fashion, letter, and spirit detailed in the book, is a cure, is *the cure,* for malignant disease or cancer. Does Mr. Assheton say that this is untrue? If so, where are the scientific evidences? J. BEARD.

8, Barnton Terrace, Edinburgh.
16*th March,* 1912.

Papers by Guy's Men.

A. G. H. Burton, M.D. Lond., and another. The Bed Isolation of Cases of Infectious Disease.—*Lancet*, March 16th, 1912.

Ernest F. Clowes, M.R.C.S., L.R.C.P. A Case of Acute Myelitis, with Optic Neuritis. With Remarks by Dr. Frederick Taylor.—*Lancet*, March 23rd, 1912.

C. M. L. Cowper, M.R.C.S., L.R.C.P. Tumour of the Pons: Early Fatal Result.—*British Medical Journal*, March 23rd, 1912.

C. H. Fagge, M.S., F.R.C.S. A Lecture on the Selection for Early Operation of Fractures of the Long Bones. Delivered at the Polyclinic.—*Clinical Journal*, March 27th, 1912.

P. N. B. Odgers, M.Ch., F.R.C.S., and another. A Case of Vegetable Gastrolith.—*British Medical Journal*, March 16th, 1912.

Guy's Hospital Debating Society.

THE 108th Meeting of the Society was held on Thursday, March 14th, Dr. H. C. Mann in the chair. The motion was "That this House desires the abolition of the dramatic censorship."

Mr. H. W. BARBER, in opening the debate in favour of the motion, deplored the lack of interest in the possibilities of the drama, possibilities which could never be developed under a censor. The action of the censorship was to sanction vice, to condemn only its results. The dramatic element is the weak point in the glories of English literature, owing to the tyranny of censorship (Shaw). The censorship is crippling to the dramatist, the manager, and the public in their highest and best interests. We are much too prone to think of and legislate for the inefficient, the ignorant, the unintelligent, though by so doing we are excluding ourselves from the free paths of progress. In the evolution of human thought, immorality, and blasphemy, and indecency, and libel, are relative terms whose value to-day is very different from their value in a few years' time. Contemporary public opinion is the last tribunal to which the imagination and ideals of dramatic authors should be subjected, for it is only by the vivid suggestion of dramatic representation that we may hope to imbue the public with fresh ideals and a fresh imagination. The censorship has the same plausibility, and the same shortcomings, as those of the Roman Catholic Index.

Mr. E. G. SCHLESINGER opposed the motion, though he disagreed whole-heartedly with a censorship as at present constituted. Sketching the history of the censorship from the formation of the post of Master of the Revels by Henry VIII., he observed that a commission in 1843 decided, as the committee recently sitting decided, that the principle of the dramatic censorship must be maintained. The drama is essentially the appeal of literature to the unintelligent, for it is an appeal to the intellect through the emotions: and the education of the unintelligent is effectual only if it be gradual and graduated. The point of view of the actor-manager is a practical one, and is apt to be overlooked; uncontrolled drama could never pay, it would be too precarious a venture. The censorship committee made a good suggestion in proposing an optional censorship, whereby those plays only which a censor had sanctioned should be immune from a liability to prosecution by the law. But when in his evidence Mr. Bernard Shaw said he wished the censorship removed, but subjection to the law of the land retained, he is practically guilty of a contradiction, especially when the administration of the law of the land was, as he suggests it should be, in the hands of a special officer. Abolition of the censorship might

remove the ban from some good plays, but it would certainly also lead to the presentation of many indecent and immoral plays, for which there will always be an eager public.

Mr. N. Mutch, in seconding the motion, held that the champion of the censorship was a champion of the orthodox and the commonplace and the mediocre. The censorship is opposed to biological teaching, for it is an unnatural restraint on an evolutionary process. The only real argument for it is that it helps the manager in his selection, and for this purpose a censorship on lines as at present must be crude and inefficient. The control of the law and the control of the censor are fundamentally different, for while one is precise and definite, the other is capricious and vague. The interests of the drama can never be finally subjected to the test of financial profit. The abolition of the censorship has its perils just as the censorship has its perils, but the freedom of thought which will come with the liberty of the drama will abundantly compensate for any danger of the misuse of that liberty.

Mr. Bevan-Brown felt compelled to dissent from his colleague on those points on which he did not fail to understand his meaning. For himself, he was of opinion that an unrestrained public taste tended to descend, not to ascend. It was a mistake to suppose that the censorship suppressed the best serious treatment of moral questions and sanctioned their treatment in the light of flippancy or farce. Bernard Shaw, for instance, deals with sexual questions invariably in the spirit of levity, intending to raise a laugh. Playwrights, like all public servants, must think of majorities, and it is, therefore, to the lower class and the unintelligent that they should generally be obliged to cater. The censorship guarantees the moral tone of the drama, and it is to the interest of good and serious drama that protection should be afforded from improper and sordid competition.

The Chairman, in opening the subject to discussion, summed up the arguments of the principal speakers. All reference to the personality of the present censor was "out of order," and without bearing on the question before the house. The point was the principle of the censorship, and with regard to the retention of this it had been urged on one side that we may show undue deference to the susceptibilities, for instance, of young girls; many good plays are quite unsuitable for such to see. On the other hand, theatres must be considered not only in the West End, but in Seven Dials, where "in loco parentis" must be the attitude of the State to the stage.

Mr. Sherris thought it snobbery to say that only the uneducated require a censorship. The educated are often equally immoral.

Mr. Willoughby urged that a censorship is logical only if it is compulsory. The optional system may be a convenience, but it is not a censorship.

Mr. Neville Cox observed the agreement between the views of various members on this question and their political convictions. Censorship leads to a spurious notoriety for inferior or ignoble plays, which would otherwise remain in their appropriate obscurity. On this principle the censorship is responsible for the introduction into so many modern plays of lurid or morbid features of the sexual problem. The censorship, like war, is an anachronism; that is why so many people are found in favour of both.

Mr. Creasy considered that many plays might be written with pure and honest motives, but yet, through misunderstanding, might convey wrong impressions to the casual or the ignorant among the audience. If we could rely on the good sense and judgment of the people to go only to those plays which they could properly appreciate, there would be no need of a censor, but we cannot; people go to morality plays, not honestly to face the problems, but in the hope of hearing something to stimulate their morbid appetite. It used to be the pride of Englishmen that they worked out their moral salvation not the less for not making public parade of their doubts and difficulties.

Mr. Schlesinger and Mr. Barber having summed up for their respective sides, the motion was then put to the vote, and declared carried by a substantial majority.

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

"Woman."

Sir,—In your admirable account of the Annual Dinner of the Guy's London University Club you surely make a most serious omission, and in "Passim" one looks for literary exactness and refinement. Can it be that the jeu d'esprit of the evening, the riddle you quote, was received without "laughter," even "much laughter," and you fail to chronicle the fact? If it were so, it is surely a serious admission as to the state of mind of the "most noble animals in creation," to lack that saving grace, a sense of humour! It is the more to be regretted as so many difficulties can be solved by its timely aid. Your "second" may influence your "first" by a single ejaculation; more subtlety of thought will be required to influence the "whole."—Yours, etc.,

"HONOUR TO WHOM HONOUR IS DUE."

W. I. Hancock Memorial.

DEAR SIR,—In your issue of February 19th, 1910, you were kind enough to insert a letter in which Drs. Fawcett and Wilson Tyson, Messrs. F. D. S. Jackson and Steward joined me in asking for contributions towards some project for keeping green at Guy's the memory of the late W. I. Hancock.

Subscribers to the fund will be interested to know that with the money placed at our disposal we were able to obtain enlarged framed photographs of Hancock for both the Students' Club and the Pavilion at Honor Oak Park. This, which formed part of Dr. Tyson's original proposal, was the form of memorial which subscribers most warmly approved of in their letters.

Considerable delay in carrying out these wishes has been occasioned by the great difficulty in finding a good portrait of Bertie Hancock, suitable for enlargement, but finally a cricket group containing much the best photograph of him which we have seen was placed at our disposal by the kindness of Mr. W. T. Lister and Mr. R. R. Cruise, to whom our best thanks are due.

One copy has been gratefully received on behalf of the Students' Club by Dr. Hale White, the President, and is now hanging over one of the fireplaces in the Smoking Room; the other has been acknowledged in a letter of appreciation by Mr. R. Davies-Colley, Hon. Sec. of the Clubs' Union, and is to be put up in the Pavilion at Honor Oak Park.—I am, dear Sir, Yours sincerely,

C. H. FAGGE.

"Refractions" in General Practice.

DEAR SIR,—I am in general practice in an outlying suburb of London (12 miles). About five years ago I took half a dozen lessons in "refraction"; purchased card, trial glasses, etc.; whole outlay about ten guineas. I have prescribed glasses for nearly two hundred patients: average rate 40 per annum. This does not include an almost daily examination of eyes for diagnostic purposes. I have been impressed by the following facts:—

1. A large trial card and a display of trial glasses give rise to such remarks as: "I see you make a hobby of 'eye' work"; or, "you go in for eyes as a speciality," and so forth. This I call legitimate advertising.

2. The extraordinary amount of confidence even wealthy people will place in one's powers, if it is frankly and freely pointed out to them, that if their case is at all unusual or difficult they will be advised to consult a specialist.

3. The immense amount of good that can be done, both to the patient and to one's own banking account and "kudos," by doing something a little different to the "other man down the road."

4. The extremely small number of cases in which it is necessary to seek higher advice, and the still smaller number that receive any benefit from such advice.

5. Finally, being aware of one's limited knowledge of the subject, the fact that no harm has been done is gratifying.

With difficulty I was persuaded to take up this work, but I have lived to bless the persuader ever since.—Yours truly,

B. F. PENDRED.

SIR,—The facilities offered to Guy's men in the speciality of ophthalmology at their hospital have always been great. It does appear to me a pity that the knowledge is not more generally taken advantage of. But it must be understood that without constant practice and familiarity, such a speciality on a six months' training does not, as it were, qualify a man as a specialist. For a general practitioner to turn his attention to any special subject he must at once decide to divorce himself from the general treatment of all diseases. Unless he does this, success in any speciality can never be assured to him. I remember years ago how the practice of dentistry was despised at Guy's and how difficult it was to get men to do the work of dental surgeon's dresser. Now we see what a foothold it has at the Hospital, and, moreover, what a lucrative calling can be made out of it. And yet, with all the other special departments of practice, men can starve at them. And again, when you come to compare dentistry with other specialities, what a contrast! It's all simple enough, yet there are two essential qualifications, namely, practical skill and ingenuity. And with these two points in the specialism of dentistry a living wage is easily secured. Competition and rivalry affect much less the practical dentist, but in ophthalmology everyone is on equal footing; of course, I am talking of well-trained Guy's men. If a man is in general practice, and dabbles in every branch, he will never gain the confidence, nay, the respect of his confrères or of the public if he attempts to pose in a double capacity of general practitioner and specialist. And why should he, under the circumstances, quibble with rivals?

In conclusion, I would remark how important it is for every type of specialist to be thoroughly trained in every branch of his profession ere he separates himself from general medicine and surgery. And there is no better qualification for the specialist than having served a few years in the general ranks of the profession as several of our great men at Guy's have done before us.—I am, dear Sir, Yours very truly,

JOHN FREDK. BRISCOE.

Alton, Hants.
17th March, 1912.

The Treatment of Some Varieties of Diarrhœa and Vomiting in Infants.

CLINICAL LECTURE BY DR. CAMERON.

Gentlemen,—In my last lecture I spoke shortly of the common causes of diarrhœa and vomiting in infants, and I put on the board a table which I think I may repeat, because it serves to show exactly to what part of the subject I want to devote the present lecture.

Infantile diarrhœa and vomiting, or infantile dyspepsia, may be due to the following causes:—

1. Over-feeding.
2. Coincident pyrexial disorder.
3. Feeding with decomposed milk.
4. Feeding with infected milk.
5. Feeding with a mixture of unsuitable composition.

The first two of these causes and perhaps, though rarely, the last, are at work both in breast-fed and in artificially-fed infants, the others only in the artificially-fed. The treatment of the condition depends in each case upon the particular cause, and in my last lecture I spoke of the ways in which over-feeding may be guarded against in susceptible infants by careful measurement and careful recording of the amounts of food taken and of the infant's weight. Where diarrhœa and vomiting is a symptom of some infection of parts other than the alimentary tract, the treatment resolves itself into the treatment of that particular disorder. When the infant recovers from the attack of bronchitis, of influenza, or of pyelitis, or whatever the infection may be, the symptoms of alimentary disturbance disappear also.

To prevent decomposition of milk and to prevent infection of milk we must take precautions to ensure a supply of fresh milk, and must adopt the most scrupulous cleanliness. Into the various methods of sterilisation, pasteurisation, or refrigeration, I have at present no time to enter.

It is with dyspepsias of the last group that I wish especially to deal, and for the sake of convenience I will consider here also the treatment of summer diarrhœa.

In my last lecture I tried to depict the symptoms of three common types of disorder.

1. Carbohydrate dyspepsia, due to excess of carbohydrates.

2. A condition which may be called "Casein Dyspepsia," not infrequently met with in infants fed on cow's milk, in which there is a great excess of casein and a low percentage of carbohydrate.

3. Summer diarrhœa or intoxication, in which the alimentary symptoms form only a small part of the clinical picture, and are less striking than the symptoms of intoxication.

i. In carbohydrate dyspepsia the child is commonly fretful and peevish; he sleeps badly and becomes pale and tired-looking; his appetite rapidly fails, and his weight tends to be stationary or to fall slowly. The wasting is sometimes marked by a retention in the body of water so that in some cases there may be actual œdema. The resistance to pyogenic infection is much lowered. The temperature is irregular, and tends to be raised a little above the normal line. There is some vomiting. The stools are watery, frequent, often of bright green colour, and very acid. There are no symptoms of intoxication.

ii. In casein dyspepia there is the same fretfulness, want of sleep, and pallor. The appetite, however, often remains good, and a child of eight or nine months may be taking as much as two pints of milk in the day without putting on weight. Abdominal distension and flatulence, with severe attacks of colic, are common and a marked feature. Vomiting may occur. The curve of the weight is irregular; for several days there may be a rise which encourages hope, and then again an almost equal loss, so that the weight may remain almost stationary for months. There is, however, no true diarrhœa. The child passes large, bulky, alkaline, white motions, which are formed into a mass, and can readily be separated from the napkin. The temperature is often rather below the normal line.

iii. In summer diarrhœa, in addition to profuse diarrhœa and vomiting, there is evidence of poisoning and intoxication. The child's intelligence is clouded; it lies passively in whatever position it may be placed, and in all sorts of unnatural attitudes. The respiratory centre may be affected so that the breathing is hurried and irregular. The rapid loss of fluid is apparent in the shrunken skin and depressed fontanel. The urine often contains albumen, sugar, or diacetic acid. The temperature is raised often to 103° or higher. Finally the loss of weight is enormous and rapid, so that the curve takes a sudden downward swoop at or about the point at which the symptoms of intoxication come on, and the temperature rises.

It is of the treatment of these three groups of cases that I propose to speak. I do not wish it to be supposed that there are no other forms of disturbance. I have, for example, omitted the consideration of the disturbances which are due to excess of fat in the diet, because I do not think they are very commonly met with in out-patient practice, and I have said nothing of derangements which are the result of the differences in salts in the diet.

Let me first put before you a few elementary considerations of physiology.

1. *Proteids.*—The proteid of the food has a threefold function to perform for the child—

a. It serves as a stimulus to growth. Without proteid cellular activity is impossible and soon ceases.

b. It serves to replace the proteid which is constantly being lost to the body—in the sweat, for example, and in the intestinal secretions.

c. It can also serve as a heat-producing substance.

It is only the last of these three functions which can be replaced by carbohydrates or by fats.

A baby which is fed upon cow's milk which contains very large amounts of casein is quite able to digest the increased amount of proteid. Its stools seldom contain more than that small proportion of nitrogenous matter which is derived from the intestinal secretions. It uses the excess of proteid for dynamic purposes, to replace heat lost, and to produce energy.

The amount of nitrogen, which is retained in the body and not passed either in the fæces or in the urine, is very nearly the same in breast-fed infants and in infants fed on cow's milk. The amount retained is, however, closely dependent on the amount of carbohydrates in the diet.

Carbohydrates possess the power of increasing the retention of nitrogen in the body and stimulating growth. This power is not possessed by fats.

A very special property of the casein of raw cow's milk lies in its tendency to excite a copious flow of alkaline intestinal juices and to check the excessive fermentative changes which are the rule in carbohydrate dyspepsia and summer diarrhœa. In the large-formed stools which are often passed upon a diet rich in casein such as whole milk, there is never evidence of fermentation or of the production of excess of fatty acids. The stools are alkaline and not acid, and may acquire an unpleasant putrefactive odour.

2. *Fats.*—In contrast with proteid digestion a considerable percentage of the fat of the food normally appears in the fæces. Of this fat a part appears as fatty acids, part as soaps, and part as neutral fat. In the large, bulky, white, alkaline-formed stools of some infants fed on cow's milk the soaps are in excess, so that about fifty per cent. of the fat in the stools appears in combination with calcium and magnesium. It is even possible that in some cases the large amount of calcium and magnesium passed out in this way results actually in the formation of a negative balance; *i.e.*, more of these salts are passed out than are taken in by the mouth. If this result occasionally happens, it is easy to understand why, occasionally, we meet with infants who, in spite of taking large amounts of cow's milk, fail to grow and develop. For the assimilation of fats, sugars are necessary. Fats are only burnt up completely in the presence of sugars. With disturbed carbohydrate metabolism, oxybutyric acid, diacetic acid, and acetone appear in the urine.

3. *Carbohydrates*, as we have just seen, increase the retention of proteids in the body and are necessary for the complete metabolism of fat. Carbohydrates are especially concerned with the maintenance of the body temperature; upon a diet extremely poor in sugar, the temperature tends to be permanently subnormal. With great excess of carbohydrate in the diet the fermentative processes in the bowel reach a maximum, and the stools become watery, green and acid. The loss of tissue and atrophy which results from the want of sufficient proteid is often masked by a considerable hydræmia. In extreme cases there may even be slight dropsy.

I have lately had four such cases of dropsy without nephritis in young children at Out-Patients. In all the œdema was only marked at the extremities, especially on the backs of hands and on the dorsal aspect of the feet, and in all the œdematous parts were cold and cyanosed. I do not know the reason for these symptoms, but I can well imagine that the cause is in part due to weakness of the heart's action, and in part due to a true hydræmic plethora.

Most of such children have been fed on a diet in which carbohydrate food predominates almost to the exclusion of all else. The child of eighteen months who is now in Clinical had been fed almost entirely upon biscuits and bread with golden syrup and jam, and was apparently a great eater of sweets. He drank only about

half-a-pint of milk in the day to which sugar was added. Sometimes the condition is accompanied by an alimentary glycosuria. In a child who was under my care a moderate amount of Mellin's Food added to the milk produced glycosuria. Nearly always there is a great tendency to pyogenic infection of the skin. The child who is now in Clinical had attended Sir Cooper Perry's Out-Patients for a severe form of impetigo. One of the children, whose back was covered with numerous unhealthy ulcers, died of an empyema; the other three recovered rapidly upon a plentiful diet of milk. When such a child is first placed upon a milk diet a considerable loss of weight may occur, because of the rapid loss of water from the tissues.

These properties of casein and of carbohydrates help to explain the sharp contrast between these two types of disturbance, the one with hydræmia, some pyrexia, and green acid fermented stools, the other with colic and flatulence, subnormal temperature, and bulky alkaline stools with putrefactive odour.

Let us now consider the varieties of food at our disposal. Below I place a table which shows the composition of cow's milk and human milk in respect of proteid, fat and carbohydrate.

Human milk.			Cow's milk.		
Casein ...	·6	2·0	Casein ...	3·25	4·0
Lact.-albumen	1·4		Lact.-albumen	·75	
Fat	3·5		Fat	3·5	
Sugar ...	7·0		Sugar . .	4·0	

It will be seen that the difference lies in the great preponderance of proteid in cow's milk and in the lower percentage of sugar. Of this proteid much the larger amount is in the form of casein.

I have here also examples of a variety of condensed milks and patent foods. Of condensed milk there are two varieties—the sweetened, to which cane sugar is added, of which we may take the Milkmaid Brand as a type—approximately protein 10, fat 10, sugar 60 per cent.—and the unsweetened, of which I show you the Viking Brand—approximately protein 10, fat 10, lactose 13–18 per cent.

When unsweetened condensed milk is diluted with two or three times its bulk of water, a mixture more or less comparable to fresh cow's milk results. I say nothing at present of the changes which the milk has undergone because of the great heat to which it has been subjected or of the loss of the anti-scorbutic property.

When sweetened condensed milk is used a greater dilution is necessary—at least one in eight—and mothers will often give a much greater dilution than this, and may even add more sugar to the mixture. The unsweetened milk does not keep long after the tin is opened, and is more expensive because it is given in less dilution.

Glaxo is a milk which has been converted to a powder by passing thin sheets of milk over copper plates, which are made so hot that the milk immediately pulverises. According to the Guy's Hospital Gazette it consists of proteid 22·2, fat 27·4, sugar 41·0, water 6·0, ash 3·4 per cent. One measure, which you see is supplied with the tin, is filled and dissolved in one ounce of water. The resulting mixture has approximately the composition of cow's milk. Of patent foods there are many varieties—

1. Dried milks, with the addition of entirely malted carbohydrates. I show you Allenbury's No. 1, which consists of proteid 14·25, fat 13·15, carbohydrate 65·48 per cent. One half-ounce of the food makes three ounces of the mixture. The cost is considerable. Horlick's Malted Milk is similar in composition. Neither contains any starch.

2. Dried milks, with addition of unmalted or partially malted cereals. Nestlé's (Milo) Food is a well-known example. Benger's Food, which I have here, is similar, but contains pancreatic ferment. Three-quarters of an ounce of the food is mixed with two ounces of cold milk into a paste, and ten ounces of hot milk is added. If the milk is allowed to stand for a quarter of an hour a certain amount of the starch is converted into soluble carbohydrate. To stop this process the milk must be boiled.

3. Completely malted foods such as Mellin's Food. Two to four teaspoonfuls of Mellin's Food may be added to the total milk taken during the day.

4. Cereal foods with starch practically unchanged, such as Neave's Food or Ridge's Food.

5. Lastly, I have here a tin of Plasmon, which is a dried casein, which may be given to infants in a strength of one teaspoonful to five ounces of boiled water.

Treatment of carbohydrate dyspepsia.—In dyspepsia from carbohydrate excess it is generally wise to stop all food for 12 hours and to give only albumen water or plasmon in water. If the child will not take this readily, because it has grown used to the sweet taste of the sugar-rich food, saccharin may be added. About $\frac{1}{60}$th of a grain is equivalent in sweetening power to a teaspoonful of lactose, and lactose is less sweet than cane sugar. Saccharin may always

be used in this way as a substitute for sugar to flavour the food. Even quite young children used to a sweetened food may for a time take unsweetened cow's milk very badly, because the familiar sweet taste is missed.

After 12 or even 24 hours' starvation, although with a plentiful supply of fluid, feeding may be begun with small amounts of raw milk without sugar from which the cream has been removed. At first four or five ounces of milk may be given in the 24 hours—together with the necessary supply of water—but this may be gradually increased, if the child improves, up to the full amount. It is essential to increase the amount gradually, and for this purpose the metric system has great advantages, because it is so much more flexible. It is easy to make such a prescription as 8×10 c.c. milk or 8×30 c.c., and to recognise at once, without calculation, how much the child has, at a single feed and how much in the 24 hours. When the normal amount of milk is being taken, and the stools are normal, we can begin to dilute the milk to the extent suitable for the age of the child and gradually add to the prescription one per cent., two per cent., and so on to five or six per cent. of sugar, until a satisfactory increase in weight is obtained. Again, the metric system enjoys the advantage that the added sugar is measured in the same terms as the volume of the milk; for example, a prescription 10×50 c.c. $+5$ per cent. lactose, means that the child has 500 c.c. of milk in ten feeds, with 25 grams. of lactose in the twenty-four hours. Lastly, the fats must be gradually increased by the gradual omission of the skimming process.

Cow's milk, because of its richness in casein, acts powerfully, as I have said, in preventing the acid fermentation, which is the cause of the disorder and is the most suitable diet to prescribe. It gives, as a rule, better results than condensed or dried milks in which the casein clot is less dense and firm, and though more digestible is less likely to cause a strong alkaline reaction in the bowel. In Germany and America great use is made of the so-called casein milk for this purpose.

Casein milk is prepared by removing the casein from one pint of milk and adding it to half-a-pint of butter milk and half-a-pint of water. The casein is ground up very fine and passed through a hair sieve. This very condensed form of casein has an even more powerful action in solidifying the stools and stopping the fermentative process.

When the symptoms improve and sugar is added gradually, it is best to add maltose or such a mixture of maltose and soluble dextrins as Mellin's Food. Maltose is probably less readily fermented and better tolerated than either lactose or cane sugar. In older children it is immensely important to vary the form of carbohydrate, so that the whole carbohydrate intake is not composed of sugar. This may be done by adding one of the patent foods mentioned, such as Ridge's or Neave's food, or by diluting with a gruel made from barley, oat, or wheat flour. A gruel made from two ounces of such a flour to a quart of water contains 4 per cent. of carbohydrate and about ·5 per cent. of proteid. By means of a second carbohydrate the difficulty of giving children a sufficient carbohydrate supply without producing dyspepsia can be overcome.

I do not think much is to be gained from the use of drugs. A preliminary purge may be useful during the fasting period. Opium and astringents are out of place.

Treatment of casein dyspepsia.—The main indication is to dilute the milk, to diminish the bulky casein clot, and to increase the intake of sugar.

In obstinate cases it is well to abandon, for the time being, the use of ordinary cow's milk, and to substitute butter milk with added sugar, a whey, cream and sugar mixture, soured milk or peptonised milk. In other cases the modification which is wrought in the casein by its subjection to great heat may be made use of. The curd of condensed milk and of dried milk has lost much of the peculiar bulkiness of the raw casein, and its use is not so liable to be followed by vomiting of curd, colic and flatulence, and the passage of bulky, putrefying alkaline stools. In yet other cases, especially in very young infants, a dried milk with added malted cereals, such as Allenbury's, may meet with success. In any case, after some weeks, a gradual return to a diluted milk with added sugar diet should be instituted.

In discussing these opposite types of disorder it is to be insisted that neither *necessarily* follows upon a diet which errs in the direction indicated. There are many children who are completely successful, for the time being, in adapting themselves to a rich carbohydrate diet—I say for the time being because on such fat-poor diet the tendency to rickets is greatly increased—and there are many children who thrive upon a diet of undiluted milk. Yet, when disorder of digestion does occur from these causes it is almost invariably of the nature indicated. It is important to realise the difference. To prescribe extract of malt or

Virol to a child which is already ill from carbohydrate over-feeding, as I sometimes see done, is to cause a grave danger of serious illness.

Lastly, in one more particular casein dyspepsia and carbohydrate dyspepsia are in contrast. While the former seldom leads to intoxication, any infant with excessive fermentation in the bowel is in great danger of developing intoxication with all the additional symptoms of abnormal absorption to which I have referred.

In *the treatment of summer diarrhœa* we have to combat both the intoxication and the collapse. The intoxication is to be treated by starvation for 24 hours or even longer until the symptoms of intoxication pass off. As before, the necessary water or albumen water, sweetened, if need be, by saccharin, must be given by the mouth. When food is begun let it be as purely proteid as possible; plasmon, one drachm, dissolved in five or six ounces of water may be given early. Cow's milk, from which the fat has been removed as cream, and to which no sugar has been added, and which retains all its casein, may be begun in teaspoonful doses. Patent foods, rich in carbohydrate, are all contra-indicated. Whey may be retained, but has not the same action as the casein of putting a stop to the fermentative process, and the consequent intoxication. Only with the decline of the symptoms of intoxication must sugar be added.

Washing out the stomach and the bowel with a weak alkaline solution helps to empty the bowel and diminish the acid fermentation. The collapse is combated by maintaining an equable warm temperature. A single hot bottle defeats its own object; as the bottle cools, the infant cools too. The best way to preserve a constant temperature is to have three or four smaller bottles, one of which is changed every hour. Secondly, the collapse is lessened by subcutaneous injections of saline solution at a temperature of 100° F., and by the administration of brandy, well diluted, or the subcutaneous injection of strychnine. If possible, the child should lie in the fresh air, and a hurried visit to the seaside may save the child's life. The utmost cleanliness must be obtained in the nursing of the child.

A preliminary purge is seldom required. Wherever there are symptoms of intoxication opium is to be avoided. The retention and absorption of any part of the fermented contents of the intestine is exactly what we aim at avoiding, and the diarrhœa and vomiting must continue, if the child's life is to be saved, until the fermentation is lessened. Often both diarrhœa and vomiting cease for some hours before death, but without accompanying improvement in other respects. The severity of the diarrhœa and vomiting is not an accurate index of the danger of the illness. I have seen no benefit from astringents.

With recovery from the symptoms of general intoxication and with improvement in the colour consistency and reaction of the stools a gradual return from the undiluted skimmed milk to the usual mixture of diluted milk with added sugar and cream may be made.

In none of these conditions is forced feeding allowable. Nasal feeding should be reserved for children who are unable to suck for one reason or another, because of the formation of the mother's nipple, because of cleft palate or diphtheritic paralysis, or because of such extreme weakness as results from premature birth, or with atelectasis pulmonum.

Specialities.

Natural Karlsbad Sprudel Salt.

This salt is stated to be obtained by evaporation of the Sprudel water, and its genuine character is guaranteed by the Municipality of Karlsbad. It is in the form of a white powder readily soluble in water, the solution having a not unpleasant taste. Analysis showed it to contain dried sodium sulphate, 43·4 per cent.; sodium bicarbonate, 38·4 per cent.; sodium chloride, 18·0 per cent., with a trace of potassium salt. The bare statement of its composition is sufficient evidence that it will form a useful alkaline laxative in some forms of constipation associated with gout, while combined with lemon juice it forms a pleasant laxative draught.

Dry "Diamalt."

The syrupy "diamalt" preparations have established a reputation for their very high diastatic activity, and although opinion differs as to the exact amount of importance to be attached to this factor as compared with the food value of the preparation, the consensus of opinion appears to favour the presence of a moderate amount of diastase.

The preparation before us is a light brown powder which should prove more convenient for taking than the ordinary sticky extracts; it is soluble in water, the solution having a pleasant malt-like flavour.

As a rule in the process of preparing dried malt extracts the diastase is destroyed; in dry "diamalt," however, some of the diastase is retained, and at the body temperature we found it capable of converting twice its weight of arrowroot in eighteen minutes.

Guy's Hospital.

Returns of the Bacteriological and Vaccine Department for 1911.

Total number of specimens examined in the Bacteriological Department, classified according to the department of the hospital from which each was derived, during the year 1911.

Medical Wards	705
Clinical Wards	470
Surgical Wards	874
Post-mortem Room	177
Out-Patients' Department	1,366
Casualty Department—Front Surgery ...	1,904
Unclassified	984
Total, 1911	6,480
Total, 1910	5,326

Total number of specimens examined in the Bacteriological Department during each month of the year 1911 :—

January	571
February	551
March	595
April	453
May	640
June	514
July	615
August	568
September	525
October	478
November	536
December	434
Total, 1911	6,480
Total, 1910	5,326

Vaccine In-Patients.

1911.	Addison.	A. C.	Charity.	Clinical.	Cornelius.	Dorcas.	Esther.	Eye.	Job.	Lazarus.	Luke.	Lydia.	Martha.	Mary.	Naaman.	Pat. &Sam.	Q. V.	Stephen.	Total, 1911.	Total, 1910.
Dr. Hale White ...	9	...	...	2	...	...	...	..	...	...	...	...	...	9	...	...	...	...	20	28
Dr. Pitt	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	6	10	12
Sir Cooper Perry ...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	1	5	15
Dr. Shaw	1	...	...	4	...	...	...	...	...	...	...	...	...	10	...	...	...	...	15	11
Dr. Fawcett ...	1	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	5
Dr. Beddard ...	...	...	...	4	...	...	4	...	...	...	...	...	...	...	...	...	...	2	10	13
Dr. French	...	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	1	4	2
Dr. Hertz	1	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	9
Mr. Symonds ...	...	2	...	...	.	...	...	...	4	...	...	11	...	...	...	...	...	...	17	16
Mr. Lane	...	...	...	...	9	...	...	...	...	17	...	...	14	...	...	...	...	...	40	32
Mr. Dunn	...	3	...	...	...	1	...	...	...	...	...	...	...	...	4	...	...	...	8	23
Sir Alfred Fripp ...	...	...	10	...	4	...	...	...	...	...	11	...	...	...	...	...	...	...	25	13
Mr. Steward ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	4	...	...	5	7
Mr. Fagge	...	...	...	...	...	...	...	...	...	3	...	...	1	...	...	4	...	...	8	10
Mr. Rowlands ...	...	...	...	...	...	1	..	...	...	...	...	...	...	...	...	3	...	...	4	8
Mr. Turner	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	3	...	...	4	10
Mr. Targett ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	5	...	9	7
Mr. B. Smith ...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	1	3	...	4	5
Mr. Eason	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	5	6
Mr. Ormond ...	...	...	...	...	...	...	...	7	...	...	..	...	...	...	...	...	...	...	7	8
Res. Surg. Officer ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	—
Dr. Eyre (Students)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30	28
Total	12	5	10	20	13	2	14	12	5	20	12	11	15	19	4	19	8	12	243	268

Number of Special Vaccines prepared during 1911, 378; in 1910, 316.

Vaccine Out-Patients.

Month, 1911	No. of Letters Issued.	No. of Attendances.	No. of Doses Administered.	
			Tuberculin.	Spec. Vaccine.
January ...	109	197	90	68
February ...	24	178	87	53
March ...	36	235	99	86
April ...	18	174	64	82
May ...	18	226	80	97
June ...	29	239	70	116
July ...	10	196	65	86
August ...	15	185	59	85
September ...	12	205	68	88
October ...	15	178	53	81
November ...	16	159	55	67
December ...	12	170	58	81
Total, 1911	314	2,342	848	990
Total, 1910	234	2,145	1,031	671

Of the 314 Out-Patient letters issued, 89 related to cases in which tuberculin alone was administered; in 15 an autogenous vaccine was employed in addition to the tuberculin, in order to combat a mixed infection. Eighty-one patients were treated by the administration of autogenous vaccines, and 36 by stock vaccines. In 93 instances the letters refer either to the patients, who, in our opinion, did not need treatment by vaccines, or who were sent for some special method of diagnosis.

Diseases for which Vaccine Treatment was employed.

Acne.
Actinomycosis.
Axillary abscess.
Bronchitis.
Carbuncle.
Cervicitis and endometritis.
Chronic nasal catarrh.
Compound fracture of tibia.
Conjunctivitis.
Cystitis.
Dacryocystitis.
Empyema.
Fistula.
Frontal sinusitis.
Furunculosis.
Gonorrhœa.
Gonorrhœal arthritis.
Impetigo.
Irido-cyclitis.
Iritis.
Keratitis.
Lupus.
Œdema of lip.
Optic neuritis.
Otorrhœa.
Periurethral abscess.
Proptosis.
Psoas abscess.
Pyelitis.
Pyodermia.
Pyorrhœa.
Rheumatoid arthritis.
Rhinitis.
Scleritis.
Septic hand.
Septic foot.
Septic ulcer of leg.
Syphilis.
Thrombosis.
Tuberculous bronco-pneumonia.
Tuberculous choroiditis.
Tuberculous epididymitis.
Tuberculous episcleritis.
Tuberculous glands.
Tuberculous lesions.
Tuberculous osteitis.
Tuberculous peritonitis.
Tuberculous synovitis.
Vaginitis.

The Diagnostic Uses of the X-rays in Dentistry.

Précis of Paper read before the Dental Society by J. W. Mayer.

Since the invention of the first machine capable of producing an electric spark, scientific energies have been continually directed to the investigation of these mysterious X-rays. Sir William Crookes closely investigated the behaviour of electric currents passing through glass tubes enclosing high vacua, and noticed that some of the photographic plates, when developed, showed marks corresponding to his fingers, but attributed them to some fault in the plates.

Professor Röntgen first discovered that parchment, washed over with barium platino-cyanide, showed brightly in a dark room, if placed over a Crookes' tube through which an electric current was passed. He further found that his hand, if placed above the tube, cast a shadow of its bones and flesh on the screen. Finally, he discovered the photographic property of these rays, and thus the first X-ray picture was produced.

Now, why is it that these shadowy skeletons become visible to us? If a series of electric sparks be passed through a glass tube partially exhausted of air, the sparks become continuous and coloured. As the vacuum is increased, a sheath of blue light surrounds the cathode, fading under still higher pressure, and the tube begins to glow with a golden fluorescence.

In the modern X-ray tube, the cathode is made of aluminium, and *concave* in shape. This causes the stream of molecules set in motion by an electric current to converge at a point. Here a platinum anode is placed, inclining 45 degrees to the stream. Thus, rays are radiated from a spot upon the platinum anode, and being produced by electricity passing through a partial vacuum, they possess those peculiar properties which we have to consider.

Mode of Examination.

The condition of tissues can be examined either by using a fluorescent screen, by reading the photographic plate taken by the radiographer, or by examining a print off the negative.

Screen examinations of the teeth can be made:—

1. By using an instrument shaped like a mouth mirror, having, instead of glass, a fluorescent surface covered with transparent celluloid for protection. This screen is backed with ebonite.

2. By using Rolle's instrument, an aluminium tube with a mirror fixed to its end at an angle of 45 degrees to its axis. On the side of the tube facing the mirror is a fluorescent screen, shadows shown on which are reflected on to the mirror. The examina-

tion is made in a dark-room; the screen is placed in the mouth, and the shadows of the teeth can be clearly seen.

A negative should not be read by holding it up to the window, but should be put before a white surface electrically illuminated, or placed, film side down, on white glazed paper. But the best method is to take a print off the negative on glazed photographic bromide paper; this will show all possible details.

X-RAYS AS AN AID TO DIAGNOSIS.

The immense value of the X-rays lies in the fact that substances of different densities are unequally transparent to the rays: the higher the density the darker the shadow. Therefore, fillings and metal work, blood, iodoform, mercurial preparations, teeth and bone, show dark on the photographic print. Silicates, muscles, pulps, and pus are represented by light shadows. Callus of early formation shows darker than that formed later, as it contains more salts.

The X-ray examination is to be preferred to the probe as being painless, strictly aseptic, and far more reliable, especially with regard to deep structures.

Another great advantage in the X-rays is that visual proof can be given to a sceptical patient of the real cause of her trouble.

SPECIAL CONDITIONS IN WHICH THE SKIAGRAM IS OF THE HIGHEST VALUE.

1. *Fractures and dislocations of the jaws and teeth*, enabling one to locate a fracture, and see the position of the broken segments. The line of fracture shows on the print as a *light* shadow between the dark ones cast by the adjacent bone. (In saying "light," or "dark," it is always the *print*, not the negative, which is referred to.) As callus fills the fracture the light line will disappear.

Malposition of fragments, and the head of the condyle in dislocations can also be seen.

2. *Normal and abnormal eruption of teeth.*—Skiagrams will show the position of malposed or abnormally erupted teeth, and whether a tooth is deciduous or permanent; they should also be consulted before extracting persistent deciduous molars.

3. *Diagnosis and cause of abscess formation, and course of the resulting pus.*—The size and position of an abscess sac, and how far it involves the root can be seen by a skiagram. Pus will show as a colourless patch, healthy alveolus as dark, and necrosed tissue as less dark.

Dr. Lewis considers that improper and short root fillings—which the skiagram shows—are generally the direct cause of abscess; and Lange advocates the use of a skiagram in all difficult operations on the root canal.

4. *Diagnosis of causes of difficult extraction or other difficult dental treatment.*—The treatment of "pulp stones," impacted teeth, exostosed, and ankylosed teeth, is also greatly helped by previously taking a skiagram.

5. *Diagnosis of cause of pains of obscure origin.*—Of these, neuralgia is perhaps the most important. Amongst its causes are pyorrhœa alveolaris, impacted teeth, tumours, and carious teeth. If skiagrams show these to be absent, the ground is cleared for treating causes more remote.

6. *Diagnosis of antral trouble.*—A skiagram will show the condition of the antrum, and where best to place a drainage tube to carry off any pus present.

It is not suggested in the foregoing remarks that skiagrams solely should be relied upon in dental diagnoses, as taking them is often inconvenient or expensive. But they form a most valuable addition to the dentist's armoury.

The paper, of which the above is a précis, was accompanied by explanations of skiagrams taken from dried skulls, mouth and teeth, showing relative densities of shadow, fractures, and various morbid dental conditions.

A Wail of a District Nurse.

Now Phœbe was a gentle maid
And never known to curse,
Till she went upon the district
And became a district nurse.

Her temper then was sorely tried
As to the "Cut" she swam,
In weather vile and pouring rain,
And breathed a heartfelt d——n.

And then upon the doorstep
Her spirits sank anew,
For far off in the distance
She heard the baby "mew."

Then up, and up, and up she went
For miles, and miles, and miles,
Till she cried in desperation
"Do you live upon the tiles?"

And when at last she got there
She hadn't words to say,
For all that met her vision
Was a blooming B.B.A.

* * * * *

Ten weeks upon the District
And another two to do,
So far she's got one case to count,
Just listen all of you—

Who wish to get the C.M.B.,
And think it very easy,
Your language, too, like hers will get—
Well, just a trifle breezy.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

The late Professor A. H. Young, LL.D., F.R.C.S.

Professor of Anatomy in the Victoria University of Manchester.

By R. CLEMENT LUCAS.

Perhaps there may be found space in your columns for some remarks on the late Professor A. H. Young, founded on personal knowledge and many years of both professional and social friendship. It was about thirty-two years ago, in the year 1880, that Mr. Young appeared at Guy's Hospital with a letter of introduction from the late Professor Lund, of Manchester, in which the latter requested me to give Mr. Young a private course of operations on the dead subject, and to assist him generally to prepare for the Final Fellowship Examination of the Royal College of Surgeons. The growth of sentimental obstruction to all forms of scientific attainment, which has recently culminated in the refusal of the Southwark Guardians to allow unclaimed bodies to be used for dissection, had not developed at that period, and it was not difficult to arrange these private classes without cost to the hospital, and often with great advantage to the Medical School. I soon discovered that my pupil from the far north, though somewhat lacking in practical knowledge, possessed a mind of great breadth and an aptitude for learning far above the average.

He had been, I believe, at this time already some years engaged in teaching anatomy, and was thus prevented from devoting many hours to the study of practical surgery.

It is needless to say that he passed the Final Fellowship Examination with ease and credit. From this time there existed between us a close friendship, and he generally communicated to me the subject to which he was directing his energies. In some respects, I think, our methods of teaching were not dissimilar, for we both agreed that nothing gave a student so much confidence in his teacher as to see him reproduce from memory in coloured chalks on a blackboard a deep dissection of some part of the body. What failed to penetrate through the ears might in this way travel by way of the eye to the brain. Young was now fairly started on his brilliant career in connection with Owen's College and the Victoria University of Manchester. To his anatomical knowledge he added histology and pathology, and became attached as surgeon to the Royal Hospital. He found time to do a great deal of dissection in Comparative Anatomy, and attained the height of his ambition when appointed Professor of Anatomy in the Victoria University.

A sturdy, square-built man was Professor Young, with a kindly genial face and great warmth of friendship, a firm will and a masculine intellect, which soon made itself felt in any company. His vigorous personality led him to be chosen Dean of the Medical School and representative of his University on the General Medical Council. His visits to London in connection with our Medical Parliament, and also as an Examiner in Anatomy, served to cement our old friendship; but, curiously, though there was only a difference of a few years in our ages, he always seemed to treat me as if I were still his teacher and to refer to me for advice.

To his own admirable teaching I am sure there will be many of his old pupils ready to testify; but what has always impressed me most was his power of stimulating original work in others—that greatest of all gifts in a teacher, the power of raising enthusiasm in his subject. If no other record remained of his influence, the extraordinary positions attained by his Demonstrators would stand as a permanent monument to his genius; for I believe at the present time three, if not four, of the Professors of Anatomy were formerly Demonstrators of Anatomy in the Manchester Medical College.

List of Books

Received in the Wills Library since 1st June, 1911.

By Purchase.

Adami's Inflammation, an Introduction to the Study of Pathology, 4th edition, 1909.
Ball's Diseases of the Rectum, 1908.
Bland-Sutton's Tumours, 5th edition, 1911.
Brend's Handbook of Medical Jurisprudence, 1906.
Candy's Manual of Physics, 1911.
*Castell-Evans's Physico-Chemical Tables, 1902—11.
*Ergebnisse der inneren Medizin und Kinderheilkunde, vols. 7 and 8, 1911, 1912.
*Flint and Power's Memorials of the Craft of Surgery in England, 1886.
Flügel's Universal English-German and German-English Dictionary, 3 vols.
Halliburton's Handbook of Physiology, 1911.
Lewis and Short's Latin Dictionary, 1907.
Lyle's Manual of Physiology, 1911.
McDonagh's "606" in Theory and Practice, 1911.
Marshall's Physiology of Reproduction, 1910.
May and Worth's Diseases of the Eye, 1911.
*Milne's Surgical Instruments in Greek and Roman Times, 1907.
*Moore's History of the Study of Medicine in the British Isles, 1908.
Muir and Ritchie's Manual of Bacteriology, 1910.
*Oppenheim's Diseases of the Nervous System, 2 vols., 5th edition, 1910.
Parker's Nose and Throat, 1906.
Parsons and Wright's Practical Anatomy, 2 vols., 1912
Rose and Carless's Manual of Surgery, 1911.
Taylor's Practice of Medicine, 9th edition, 1911.

Tubby's Deformities, including Diseases of the Bones and Joints, 2nd edition, 2 vols., 1912.
Webster's New International Dictionary of the English Language, 1911.
Whitelegge and Newman's Hygiene and Public Health, 12th edition, 1911.
Wickham and Degrais' Radiumtherapy, 1910.
Wilks's Biographical Reminiscences, 1911.
Wilson's Dental Prosthetics, 1911.
*Withington's Medical History from the Earliest Times, 1894.

* For Davies-Colley Memorial.

PRESENTED.

Archives of Neurology, vol. 5, 1911. By the Asylums Committee.
Battle and Corner's Surgery of the Appendix, 2nd edition. By the Publisher.
Calendar of the Royal College of Surgeons, 1911. By the R.C.S.
Carruthers' Urine Analysis. By the Publisher.
French's Medical Laboratory Methods, 3rd edition, 1912. By Dr. H. French.
Fripp and Thompson's Human Anatomy for Art Students. By the Publisher.
Glaister's Medical Jurisprudence and Toxicology, 2nd edition, 1910. By Mr. J. H. Ryffel.
Hertz's Sensibility of the Alimentary Canal. By Dr. A. F. Hertz.
Hurry's Vicious Circles in Disease, 1911. By Dr. J. B. Hurry.
Imperial Cancer Research Fund, Fourth Scientific Report, 1911. By Dr. E. F. Bashford.
International Clinics, 16 vols., 1892—98. By Dr. Climson Greenwood.
Journal of Physiology (as published). By Dr. A. F. Hertz.
Keating's Cyclopædia of the Diseases of Children, 4 vols., 1890—91. By Dr. Climson Greenwood.
Kenwood's Public Health Laboratory Work, 4th edit., 1911. By the Publisher.
Knocker's Accidents in their Medico-Legal Aspect, 1910. By Dr. A. E. Boycott.
Moor and Partridge's Aids to Bacteriology. By the Publishers.
Moore and Paget's Royal Medical and Chirurgical Society of London Centenary, 1805—1905. By Mr. W. Wale.
Morris's History of the London Hospital. By Mr. W. Wale.
Parkes and Kenwood's Hygiene and Public Health, 4th edition. By the Publisher.
Pharmaceutical Journal (weekly). By Dr. H. French
Pitt's Bradshaw Lecture: Result of Bronchial Obstruction. By Dr. G. N. Pitt.
Records of the School of Medicine, Cairo, vol. 4, 1911. By the Director.
Reports of the M.O.H. for Kensington, 1907—1910, 4 vols. By Dr. J. E. Sandilands.
Reports on the Sanitary Condition of the Borough of Bermondsey, 1907—1910, 4 vols. By Dr. R. King-Brown.
Subject Catalogue of the Phillips Library of Pharmacology and Therapeutics. By Aberdeen University.
Vallery-Radot's Life of Pasteur, 2 vols., 1911. By Sir William Osler, Bart.
Wale's Bibliography of the Published Writings of Sir Samuel Wilks, Bart., M.D., LL.D., F.R.S., bound copy. By Mr. W. Wale.
Walker's Introduction to Dermatology, 5th edition. By the Publisher.
White's Common Affections of the Liver, 1908. By Dr. Hale White.
White's Materia Medica, 12th edition, 2 copies. By Dr. Hale White.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Deformities, including Diseases of the Bones and Joints. In two vols. A. H. Tubby. (Macmillan & Co.)

This most excellent book should undoubtedly become the standard English work in Orthopædic Surgery, and Mr. Tubby is to be congratulated upon the great improvement and many alterations made in the present edition. An attempt has been made to arrange the book upon an etiological and pathological basis, a great advance upon the haphazard classification of many text-books of surgery. Each subject is dealt with in a thoroughly scholarly and yet practical manner, and the chapters are supplied with admirable bibliographies. As is inevitable in a text-book written by one man, some of the views expressed are distinctly unorthodox, but in all such cases plentiful evidence is brought forward in support of them. The illustrations are numerous and good, and the get up of the book excellent. The only fault in fact to be found is a certain prosiness of style, which, while never dull, is yet at times a trifle wearisome, and one wonders whether a little judicious compression in parts would not add to the comfort of the reader without detracting from the value of the book. These volumes should certainly be in the possession of every surgeon, and we congratulate Mr. Tubby upon the successful fruit of a very great deal of careful and brilliant work.

Essentials of Surface Anatomy. By Chas. R. Whittaker. 2nd edition. (J. & A. Churchill.) Price 3s. 6d. net.

The second edition of this excellent and most useful little book has just been published. It has been revised and enlarged, several extra markings having been inserted and a few outline illustrations provided. These are a great help and considerably enhance the usefulness of the volume. The subject matter is presented in a lucid and concise manner, particularly in that section dealing with the regional surface markings of the head and neck. By the aid of this little volume the chief surface markings of the whole body can be read through in an hour. The printing and paper are excellent, and it is a book which will repay perusal.

Appointments.

Medical School Appointments.

APRIL—JUNE, 1912.

The following appointments have been made by the House Committee upon the recommendations of the Medical Committee :—

Clinical Assistants in Clinical Wards.—Messrs. T. B. Heaton, E. R. Hart, V. Glendining, G. T. Foster-Smith, A. C. Jepson, W. E. S. Digby.

Clinical Assistants in Medical Wards.—Messrs. W. S. George (Dr. Hale White); V. F. Soothill (Dr. Pitt); O. R. L. Wilson (Sir C. Perry).

Clinical Assistants in Surgical Wards.—Messrs. E. W. Blake (Mr. Symonds); A. M. Henry (Mr. Lane); F. C. Hunôt (Mr. Dunn); W. Matthews (Sir A. Fripp).

Surgeons' Dressers.—Messrs. E. M. Mahon, T. A. Townsend, R. C. Matson, A. C. Hancock, C. H. G. Penny (Mr. Symonds); E. D. Scott, H. Gould, F. W. Lawson, A. J. Drew (Mr. Lane); H. W. Evans, J. R. Barrow-Clough, A. J. E. Smith, H. Mather, W. L. Gwyn-Davies (Mr. Dunn); A. V. Moberly, H. S. Groves, F. D. Annesley, D. W. Jones (Sir A. Fripp).

Dressers in the Ear, Genito-Urinary, and Throat Departments.—Messrs. P. H. Berry, R. H. Lucas, C. H. L. Harper, J. W. Kemp, L. B. Stringer, T. I. Bennett, M. Scott, H. Webb, E. G. Martin.

Dressers in the Ophthalmic and Orthopædic Departments.—Messrs. E. S. Taylor, J. A. Martin, A. C. Clifford, D. V. Pickering (Mr. Eason); G. W. B. Garrett, S. Wickenden, R. D. Passey, A. L. Shearwood (Mr. Ormond).

Clerks in the Skin, Nerve, and Children's Departments.—Messrs. A. K. Selim, W. R. Pryn, A. Seabrooke.

Obstetric Dressers.—Messrs. R. Creasy (Mr. Targett); A. S. Erulkar, V. Atienza, F. B. Bull, S. Keith, F. Collar (Mr. G. B. Smith).

Post-mortem Clerks.—Messrs. J. L. Perceval, G. E. Genge-Andrews, F. Tooth, K. B. Clarke, H. C. Godding, K. J. T. Keer, J. A. Ryle, C. Sherris, O. G. Morgan, J. F. Venables.

Assistant Surgeons' Dressers.—Messrs. W. E. Tanner, A. Wills, S. Wilson, C. Dean (Mr. Steward); H. P. Whitworth, L. Muir-Smith, F. C. S. Broome (Mr. Fagge); P. R. Boswell, H. L. P. Peregrine, E. C. W. Starling (Mr. Rowlands); A. N. Minns, T. W. Sheldon, W. D. Galloway (Mr. Turner); H. H. Elliot, R. J. Hearn, D. R. Jones (Mr. Hughes).

Medical Ward Clerks.—Messrs. F. V. Bevan-Brown, C. F. Pedley, C. Lambrinudi, A. H. Taymour (Dr. Hale White); R. O. H. Jones, R. P. Ninnis, C. G. McClymont, P. Savage (Dr. Pitt); C. S. L. Roberts, W. K. McKay, J. York Moore, D. C. Scott (Sir C. Perry); P. L. du Vergé, P. R. Chevreau, J. F. Venables, F. H. Dodd (Dr. Shaw). G. B. Pritchard, W. A. Young, R. B. Campion, H. L. Messenger, E. R. Bailey, C. de W. Gibb, F. E. R. Laborda, D. M. McManus, N. H. W. Saw, H. G. Dresing, G. L. Attwater, F. G. L. Scott, T. R. Trounce.

Clerks in Electrical Department.—Messrs. S. S. Crosse, A. M. Zamora, R. C. Ozanne.

Externs.—Messrs. C. H. G. Pochin, G. S. Miller, J. F. G. Richards, G. D. Eccles, W. L. Webb (April); G. A. Pratt, W. Robinson, W. C. D. Maile, A. B. Danby (May); L. D. Wright, M. Z. Hanafy, A. G. H. Moore, H. C. Rook (June).

Naval and Military.

NAVAL.

Staff-Surgeon A. J. Wernet, M.B., to the *Queensferry* Sick Quarters, to date, 4th April, 1912.

Surgeon H. B. German to the *Collingwood* on re-commissioning.

Surgeon A. R. Brailey, R.N.V. Reserve, to be Staff-Surgeon, dated 7th November, 1911.

MILITARY.

R.A.M.C.

Captain W. H. S. Burney has taken up duty at Dublin.

I.M.S.

Major G. T. Birdwood, Civil Surgeon, is transferred from Mussooree to Agra as a temporary measure, and thence to Lucknow.

Major H. D. Peile's services have been placed at the disposal of the Commander-in-Chief.

Captain H. C. Keates, M.D., has been appointed to officiate as Civil Surgeon at Dera Ghazi Khan on transfer from Jullundur.

Captain H. Watts has taken up duty at Lahore as Plague Medical Officer.

Civil.

F. S. Adams, M.R.C.S., L.R.C.P., to be Second Resident Assistant Medical Officer, Southwark Union Infirmary.

T. E. Ashdown Carr, M.B., B.S. Lond., has been appointed Ophthalmic Surgeon to the Education Committee of the Derbyshire County Council.

T. F. Brown, M.R.C.S., L.R.C.P., Honorary Surgeon to the Ararat Hospital, Victoria.

Royal College of Surgeons.

The Licence in Dental Surgery has been conferred upon G. Matthews.

Notice.

The Grocers' Company's Scholarships.

With the object of encouraging original research in Sanitary Science, the Grocers' Company offer Two Scholarships, each of £300 a year, with an allowance to meet the cost of apparatus and other expenses in connection with the work, tenable for one year, but renewable for a second or third year, subject to the conditions of the scheme under which they are established.

The next election will take place in May, 1912.

Applications must be sent in before the 22nd April to the Clerk of the Grocers' Company, Grocers' Hall, London, E.C., from whom a form of application and further information may be obtained.

Sport.

Rugby Football.

UNITED HOSPITALS v. LONDON.

Considering the strength of the Hospitals, they should have done much better against a team drawn from the London clubs, since that team was very far from representative of London's best. Excellent forward as A. B. Read, of Richmond, is, he has scarcely had much practice as a wing three-quarter. J. G. Will, the Scotch International Light Blue and Old Merchant Taylor wing three-quarter, played as centre with Lowe.

The match was played at Richmond on Thursday, March 21st, and although there were heavy showers at intervals, a very bright and open game was witnessed. Pritchard and Medlock were early in evidence with good runs. Then A. B. Read got away and passed in to Lowe, who simply ran away from his pursuers and placed by the goal post, so that Greenwood was able easily to convert. Good passes from Davies along to Skeet took play to the corner, where Hartgill slipped in from the scrimmage. Medlock missed the goal. Although Skeet had to leave the field owing to injury, and Evans took his place, the Hospitals still had the best of the game. A round of passing put Evans in. Skeet soon returned, and the Hospitals' three's were quickly on the move again, with the result that Millett was sent over with a try. Before half-time R. O. C. Ward gained an unconverted try, and as Fiddian landed a penalty, the United Hospitals crossed ends with a lead of 12 points to 8, one of the Hospitals' tries having been converted.

Quite early in the second half, Lowe repeated his former feat by taking an excellent pass of A. B. Read's and again planting a try in a favourable position for Greenwood to goal. The London side now held a lead of one point, and this narrow margin they maintained to the end. Several times it looked as though the Hospitals would pull the game round. A very fine effort on the part of Skeet just fell short of success, Fripp catching his heels a few yards from the line, and thus a very interesting game ended. United Hospitals, 1 penalty goal 3 tries, 12 points; London, 2 goals 1 try, 13 points.

It will be of interest to the GAZETTE readers to note the teams:—

UNITED HOSPITALS.—R. Hodson (Bart.'s) (back); H. Millett (Guy's), G. B. Pritchard (Guy's), H. G. Morriss (London), J. G. Skeet (Thomas') (three-quarters); C. H. Medlock (Guy's), J. E. Davies (Guy's) (halves); G. R. Hind (Guy's), J. V. Fiddian (Bart.'s), A. E. Evans (Bart.'s), J. W. Dew (London), L. A. McAfee (London), W. C. Hartgill (London), A. B. Rosher (Charing Cross), G. Smyth (King's) (forwards).

LONDON.—D. O'H. Fripp (Harlequins) (back); A. B. Read (Richmond), C. N. Lowe (Old Alleynians), J. G. Will (Old Merchant Taylors), W. Gregory (Ealing) (three-quarters); C. F. Young (Old Whitgiftians), R. H. Williams (Old Leysians) (halves); J. E. Greenwood (Old Alleynians), H. E. Wilkins (Catford), J. Kingcome (R.N.C.), A. H. Read (Richmond), G. L. M. Warne (O.M.T.), H. C. Michell (Bank), L. P. Langton (Richmond), R. O. C. Ward (Harlequins) (forwards).

Association Football.

GUY'S 2nd v. WEYBRIDGE RESERVES.

SURREY JUNIOR CUP—FINAL.

This match was played at Weybridge on Saturday, March 16th, before some two to three hundred enthusiastic local supporters. After a shaky start, in which Weybridge nearly scored two or three times, the Hospital settled down to typical cup-tie football, and just before the interval Stebbings scored with a fine shot. During this half Coxon missed a penalty.

Immediately on resuming the second half, the Weybridge centre forward scored a simple goal, and so matters were level again, and within a few minutes Stebbings had again given the Hospital the lead, which was maintained until the end. The final score was not a true reflex of the Hospital's superiority, many chances being allowed to go by, especially during the second half. Team:—

GUY'S.—Gray (goal); Biddle, Gill (backs); Kidman, Jones, Wallis (half-backs); Rook, Wain, Coxon, Stebbings, Staley (forwards).

REMARKS.—Stebbings and Staley played a very fine game on the Hospital left wing, but the rest of the forwards were disappointing. Both the Hospital backs played a valiant game, and did much to win this cup for the second time in the club's history.

Births.

HUNT.—On 25th March, 1912, at 6, Park Crescent, Torquay, the wife of Graham Hunt, L.D.S. Eng., of a son.

IREDELL.—On 15th March, the wife of Dr. C. E. Iredell, 1, Weymouth Street, W., of a daughter.

Marriage.

MANBY - BRUCE.—On 12th March, 1912, at S. Andrew's, Westminster, very quietly, by the Hon. and Rev. J. S. Northcote, E. P. Manby, M.D., D.P.H., of 121, Victoria Street, S.W., to Mary, widow of C. W. A. Bruce, F.L.S., late Imperial Forest Service, Burma.

Deaths.

RYMER.—On 11th January, at Fort Resolution, Great Slave Lake, N.W.T., Canada, formerly of Brighton and Partridge Green, James Francis Rymer, M.R.C.S., L.D.S., D.D.S., second surviving son of the late Samuel Lee Rymer, J.P., of Croydon, aged 48 years.

STEVENS.—On 7th March, 1912, at Tunbridge Wells, Emma, wife of G. J. B. Stevens, aged 52.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 621.] APRIL 13, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	141–143
Change of Address	143
Appointments	143
Pass List	143
Some Notes on Hereditary Syphilis	144–147
Assault-at-Arms	147
To Phœbe	147
Papers by Guy's Men	147
The Patient's Point of View	148
Easter Celebrations	148
A Case of Traumatic Stricture. Clinical Lecture by Ralph Thompson	149–152
Venesection for High Blood-Pressure ...	152
University of Durham...	152
The Anatomy of Cervical Ribs	153–156
Cerebral Localisation	156–158
A Case from Lazarus	158–160
Reviews, etc.	160
University of London	160

Passim.

SPRINGTIME has many associations, some sufficiently obvious, others rather less so; but to those of us who are in any way responsible for the care of the children of the poor, every bright sunny day is a warning of the rapidly approaching and much to be feared epidemic of summer diarrhœa. This epidemic, far-reaching and dreadful enough in its effects, is made doubly so since it could so easily be prevented; and since, apparently, the State is unable or unwilling to take the matter in hand, it becomes necessary to consider what may be done by private organisations to check this terrible disease. It is perfectly safe to say that lienteric diarrhœa is largely, if not solely, due to bad food and uninstructed feeding, and it seems doubtful economy to spend money on medicine when the same money spent on food would obviate both the disease and the need of curing it.

ANYONE familiar with the Out-Patient treatment of children will know that however carefully instructions are given for the feeding of babies in the early stages of summer diarrhœa, yet economic conditions and an unfortunate disagreement over the meaning of cleanliness prevents their being properly carried out, and it becomes a question as to whether it is possible to provide suitable food in suitable vessels direct from the hospitals and other institutions. It is, of course, not the business of a hospital to undertake the feeding of healthy children, but it certainly is its business to cure disease, and since feeding is the main essential in the treatment of summer diarrhœa, it becomes a matter for consideration as to whether hospitals are not called upon to undertake the feeding of babies suffering from this disease.

FAR be it from us in any way to suggest premature interference on the part of the State in the affairs of the hospitals, but it would certainly be of great value in treatment if some scheme could be devised by which children suffering from diarrhœa and sickness could be provided with milk of known strength and antecedents. It should, at any rate, be possible for the municipal authorities to arrange some standards of quantity and dilution so that patients attending the Hospital could be fed a little less blindly than at present. We have previously pointed out how utterly inconsistent is the incessant demand for a higher birth rate, with the almost callous neglect of such children as there are, in this matter of summer diarrhœa. At the end of last summer a suggestion was raised in the GAZETTE for utilising the present numerous small-pox hospitals for the treatment of this disease, and it was pointed out that this could be done at very small expense, and at no risk to the community, since the hospitals could be cleared at very short notice. We shall welcome suggestions from our correspondents as to the treatment and prophylaxis of this disease, and we trust that some steps may be taken to remove what is a great disgrace to our profession and to the nation as a whole.

We feel sure that the Gazette might be made considerably more useful both to those at the Hospital and to old Guy's men outside by the regular and systematic publishing of notes on cases of special interest both from the wards and the post-mortem room. No one who has gone through a week of "taking-in" in any capacity, from resident to ward-clerk, will fail to realise the large amount of valuable clinical material the knowledge of which is confined to comparatively few of the many who would appreciate it. These are the cases a brief record of which published in the Gazette would, we are sure, prove both valuable and popular. This waste of matter continues, however, largely on account of the lack of what we might call special correspondents to the Gazette. We therefore ask for volunteers who will keep us supplied with short, concise notes of the many and various happenings in the different departments of the Hospital. There seems no reason why each firm should not provide at least one such special reporter, and we would suggest that such an appointment would be of no little value to the reporter himself, inasmuch as it would help to fix his clinical experience clearly in his mind, and, incidentally, would also serve as an initiation into journalistic work, which, should certain prophecies be fulfilled, might serve as a profitable alternative to a medical career.

Specialism is one of the necessary evils of rapidly advancing knowledge. No longer is it possible for any one man to be the depository of all knowledge of even a narrow field of investigation; the day of one-man text-books is over, and their place is taken by the treatises and indices "by various authors." Whilst admitting its necessity, however, there is no need to allow specialism to invade individual work before it is forced upon us. There is a real danger in the common custom of concentrating at too early a stage in training upon one particular branch of the profession, to say nothing of the fact that it is not rare to find men who limit their entire mental outlook to their own profession, rapidly encysting their intelligence and capacity in the toughest of capsules.

Apart from that, however, there does seem to be in hospital work an unnecessary amount of specialism in the sense that the doings of the various departments are only partially comprehended by one another. When on the medical side, one is apt to forget the existence of the surgical block, whilst the special departments are often things wholly apart from the average man. Much of this is inevitable, but is there not an opening for regular voyages of exploration about the Hospital? An evening contemporary has been publishing articles on "The Discovery of London," and we feel confident that the most of us might well set out to discover Guy's. The systematic reporting of cases in the Gazette would be a step in that direction, but we would also suggest that there is yet much to be done in the practical promotion of free interchange of opinion and clinical experience between the multifarious branches of the work of the Hospital.

We have been asked by several members of the Nursing Staff once more to remind men that the night nurses frequently have their sleep disturbed by the uproarious use of the swimming bath by certain people during the day. This surely only requires mention to be at once appreciated, and we feel sure that in future those who use the bath will remember the serious inconvenience to the night nurses which a noise there produces, and will refrain from allowing their exuberant spirits to overcome their natural courtesy.

The Residents' Going-off Dinner was held on Friday evening, March 29th, and was, as always, a great success. The official business of the evening resulted in the election of Mr. G. R. Hind as President, and Mr. G. T. Mullally as Vice-President of the Residents, an election which obtained universal approval and satisfaction. Messrs. Roe and Barber, the retiring President and Vice-President, will be greatly missed, and they carry with them the hearty good wishes of all who have ever in any way come in contact with them. The rest of the evening was passed in the usual convivial fashion

songs, speeches, and impromptus of the accustomed quality, and all, need we say, greeted with rapturous applause.

We hear with very deep regret that Mr. H. J. Leviseur has met with a serious accident in the Channel Islands and, at the time of writing, lies in a most critical condition. Whilst walking along the edge of the cliffs with some friends he missed his footing and, falling a distance of about 40 feet, was picked up unconscious at the bottom. We desire to express our heartfelt sympathy with his brother and his other relatives in their anxiety and earnestly hope that a recovery may be possible.

A relic of the past which might usefully be revived is the once-existing connection between the board at the Front Lodge which records the entry and departure of the Staff with the board in the College gateway which bears the names of the Staff in conjunction with their Resident Officers. Formerly an electrical communication existed between the two, and the changes made on the one were simultaneously recorded on the other. There are many obvious advantages in such a system, as those who have made many and repeated journeys to and from the College to the Lodge whilst waiting their chief know full well, and we would suggest that the old system be revived. The board at the College is sadly out of date, and its renovation might well be carried out, and at the same time the former inter-communication be re-established.

Change of Address.

Percival P. Cole, F.R.C.S., from 95, Ridgemount Gardens, Gower Street, to 59, Queen Anne Street, W.

W. N. East, M.D., from 2, North Road, Clapham Park, to 97, King's Avenue, Clapham Park, S.W.

E. Martyn Lobb, M.S., F.R.C.S., from c/o Dr. Oswald Marriott, to Kingsclere, Kennedy Road, Hong Kong.

H. C. Malleson, M.R.C.S., L.R.C.P., L.D.S., from Hampton, West End Avenue, Pinner, to 30, Thurlow Road, Rosslyn Hill, Hampstead, N.W.

F. E. Shipway, M.D., from 27, Welbeck Street to 24a, Portland Place, W. Telephone, 3841 Mayfair.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Appointments.

Military.

Major H. A. Smith, I.M.S., has been selected a Civil Surgeon for Simla, East.

The services of Captain H. Watts, M.B., I.M.S., Plague Medical Officer, Punjab, are placed at the disposal of the Home Department, also of the Government of India Department of Education, and temporarily of the Chief Commissioner of Central Provinces.

Civil.

B. W. Moss, M.B., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Lutterworth District of the County of Leicestershire.

W. H. Moore, M.R.C.S., L.R.C.P., has been appointed Medical Officer of Health to the Borough of Kidderminster.

E. Spencer Pierrepont, L.D.S., has been appointed Dental Surgeon to the Prince of Wales' General Hospital, Tottenham, N.

The following have been appointed Examiners for Internal Students for Final Examinations in the Faculties of Arts, Sciences, Economics, University of London:—

Architecture.—R. King Brown, B.A., M.D.

Physiology.—E. H. Starling, M.D., F.R.C.P. (Chairman); M. S. Pembrey, M.A., M.D.

Zoology.—R. Assheton, M.A.

Pass List.

University of London.

Second Examination for Medical Degrees.

Part I.—Organic and Applied Chemistry.

Biddle, E.	Kyle, J.
Dowling, G. B.	Leviseur, H. J.
Galbraith, D H. A.	Lloyd, V. E.
Guinness, A. F. G.	McEvedy, P. G.
Hirsch, V. R.	Stokes, A. L.
Jones, J. G.	Wacher, H. S.
*Knott, F. A.	Wallis, M. J. T.

* Awarded a mark of distinction.

Part II.—Anatomy, Physiology and Pharmacology.

Eccles, G. D.	Scott, P. D.
Harrison, S. S. B.	Simmins, A. G.
Lansdale, W M.	Smith, L. Muir.
Mackenzie, J. F.	Stallman, J. F. H.
Minns, A. N.	Stephenson, J.
Moore, J. York.	Stringer, L. B.
Punch, A. L.	Wilson, S.
Scott, M.	

Some Notes on Hereditary Syphilis.

By Dr. H. C. MANN.

These two cases of hereditary syphilis, on account of unusual character, seem to be worth recording.

Case 1.—C. L. W., a baby boy, age four weeks. The mother's age is thirty-three, she is apparently healthy and says that as far as she knows she is free from disease. There have been six pregnancies, resulting in five full-time labours and a miscarriage at ten weeks. The four elder children are alive and well, their ages being eleven, nine, six and three years respectively. The fifth pregnancy resulted in the miscarriage a year ago, while this child, the sixth, was born at term. The father, who has otherwise been a healthy man, is suffering from active syphilis at the present time—an unhealed genital sore and a rash.

The child weighed eight pounds at birth, being a well-nourished baby, without signs of disease. At the end of the first week a rash appeared upon the trunk and spread to the limbs. The rash was of pemphigoid type, hæmorrhagic in places, the bullæ in certain areas being replaced by a morbilliform eruption. At the age of two weeks gummata appeared, enlarged rapidly and broke down one after another, discharging a cheesy pus. The first gumma appeared in the scrotum, rapidly enlarged to a mass two and a half inches in diameter, and when the child was brought to hospital, at the age of four weeks, its site was marked by a deep ulcer at the base of which the exposed sloughing lower ends of the testicles were seen. In all twenty-four gummata developed, varying in size from three inches to one inch in diameter. On the anterior aspect of the thorax, three; on the back, six; in the anterior abdominal wall, five; in the scrotum, two; and on the limbs, eight. In position they were subcutaneous involving the musculature in many places. The morbilliform eruption desquamated freely and many open sores appeared on the fingers and wrists. The upper end of the left radius was enlarged and the tissues around were infiltrated. The child's weight at the age of four weeks was six and a half pounds, with wizened dusky features and scanty coarse hair.

The baby died after ten days in hospital at the age of five and a half weeks. Feeds were taken well up to an hour or so of death. Wasting was progressive. Death occurred suddenly. The Wassermann test was positive.

At the autopsy, no signs of visceral syphilis were found. A small quantity of pus was found in the left chest, with collapse of the left lung. There was evidence of recent diffuse peritonitis, the liver was covered with lymph and there was pus in the lower part of the abdominal cavity. To the naked eye, all the organs appeared normal, and no changes were found on microscopical examination of the liver.

The pneumococcus was found in pure culture from a specimen of pus which was obtained by exploration of the left pleural sac shortly before death, while a mixed growth containing B. Coli was cultivated, post mortem, from the peritoneal exudate.

Such extensive and severe evidence of disease in a baby is, of course, always a sign of grave prognosis, so, too, is the occurence of any eruption, as indicating active syphilitic disease, within fourteen days of birth. Thus I have some notes of eighty-five cases of infantile hereditary syphilis; in fifteen there were symptoms within the first ten days of birth, and of these, ten died before the age of seventeen weeks, in spite of treatment by mercury according to methods which are generally recognised.

Not uncommonly, as in this case, the child may be of average weight, or even above it, and mistakes will be made in diagnosis, if wasting or poor development at birth are regarded as essentials. Among my figures, eight babies were above the average weight, eleven were of the average weight, twenty-eight were marasmic, and twenty-seven were poorly developed. For this reason, whatever be the condition of the baby, no matter how healthy the child appears to be, where there is evidence of recent syphilis in either parent or a suggestion of venereal disease in the history of former pregnancies, it is sound policy to begin treatment by mercury on alternate days as soon as possible after birth.

With regard to breast-feeding, the decision must be made with care. I rather think that book teaching, at the present time, tends to make men consider such a method of feeding to be of the first importance for the child, but my experience is otherwise; for fully fifty per cent. of these syphilitic children, as seen at the Evelina, are better brought up by hand, and this, notwithstanding that a considerable percentage of them come from more healthy districts where social conditions are more favourable for a new-born babe than Bermondsey and Southwark. Indirect treatment by mercury, through the mother's milk, is of doubtful value.

The rash most commonly appears in the third and fourth week; in forty-one of the cases it started as a macular eruption upon the face, neck, and upper part of the chest, tending to become universal in distribution. The colour is first of all quite bright, subsequently fading to a dull red, lasting a variable time from fourteen days to eleven weeks, according to the severity of the infection, the extent of the rash and the date at which treatment is started. If untreated, and sometimes in spite of treatment, other lesions appear. There may be blotchy erythema, sometimes scattered papules, quite commonly a squamous eruption, scaling in large pieces, upon the soles of the feet. In five cases there was a purpuric rash, in eleven there was associated pyodermia, in fifteen bullæ developed. Most commonly the rash is associated with coryza. Many writers say that coryza is the earliest symptom, though in my list of eighty-five, it was absent in nineteen. Very commonly indeed the nails fall off as a result of suppuration occurring in the bed of the nail, and indolent sores form upon the fingers.

Ulceration about the mouth occurred in seventeen cases only, though scarring in this situation is often considered to be a common landmark of hereditary syphilis. Ulceration about the anus, vulva, or scrotum was seen in sixty-three, condylomata usually co-existing with shallow ulcers. Similar changes were seen more rarely behind the ears, in the axillæ and about the groin, while in five cases there were similar sores between the toes.

Nearly always, if treatment is not started early or if the infection is severe, the catarrhal inflammation spreads to the larynx; a glimpse may be obtained of an œdematous epiglottis and the child's cry is hoarse and feeble. Injection of the wall of the bucco-pharynx, of the fauces, with some œdema of the uvula is also common. When once treatment is started the coryzal symptoms clear up rapidly. In only a few cases did the discharge persist with troublesome ulceration. The extensive ulceration of the nasal fossæ leading to necrosis of cartilage and subsequent deformity which is not uncommonly seen with acquired syphilis where there has been chronic nasal catarrh, is rare as a result of early hereditary trouble. So, too, is the appearance, as in this case, of subcutaneous gummata. They were present five times in my series, in each case before the eighth week, and all died before the age of seven months. None of my colleagues at the Evelina had seen so many lesions at so young an age.

With regard to visceral disease at such an early age, the liver and spleen are more commonly found to be affected, though the enlargement of the latter is, in my opinion, more often the result of associated septic infection. Certainly in many cases of well-marked syphilis it is normal in size, and there are no changes to be seen under the microscope. The statement that "the spleen is almost invariably enlarged in syphilitic fœtuses and newly-born infants" is that of Holt.

The lesion in the liver is more usually an interstitial hepatitis. Gummata and capsulitis belong with rare exceptions to a later period of childhood. Of six cases dying with well-marked jaundice, within the first six months of life, in three there was seen proliferation of hepatic cells with an early round-celled infiltration.

When treatment is started during the first few weeks of life, my own experience has been that the official solution of mercuric chloride is more useful than grey powder, being more readily tolerated. A dose of two or three minims can be given four or five times daily from birth onwards. A very convenient method of administration is to give the liquor hydrargyri perchloridi (B.P.) with an emulsion of cod liver oil; the preparation in the B.P. Codex being easily made and palatable. Under such treatment the rash usually lasts for a period varying *from two to four weeks. I have not myself seen any* case where there seemed any particular reason for putting the child rapidly under large doses of mercury as can be done more readily by inunction than by the mouth; per contra, there are three real disadvantages: firstly, an impossibility of regulating the amount absorbed, depending, as it does, upon the condition of the child's skin, hot, moist, cold, clammy; secondly, a liability to the sudden onset of dangerous gastro-intestinal trouble when unexpected; thirdly, the frequency of pyodermia in the absence of scrupulous personal cleanliness or in the presence of septic sores and gummatous discharges. Salivation in babies is uncommon, but it does occur very occasionally.

One note as regards the treatment of the mother. Whatever be the history or evidence of disease in either parent, after the birth of a syphilitic child, the mother, who will be always found to give a positive Wassermann, should be treated by mercury, and treatment continued during subsequent pregnancy. Four mothers among my out-patients, who gave positive reactions, were treated by salvarsan, but almost immediately suffered miscarriages during the fifth month of pregnancy. In each case the drug was administered intravenously, the dose being ·6 grm., and a second smaller injection was given in two of the four cases. Our knowledge of salvarsan is, at the present time, so elementary, both as regards dosage and therapeutic action, that such evidence as the above is insufficient to warrant the non-administration of it to pregnant women, but the cases are worth recording. Possibly the employment of intra-muscular injection, according to that method which Mr. C. H. Mills has recommended in a recent number of the Gazette, may prove as successful as in those cases which he has described. If the mother has been herself the subject of active syphilis, she should be warned of the liability to recurrence of trouble during subsequent pregnancies, even if a healthy child has been born at term since the disease was contracted. Many examples are on record; here is one from my out-patients:—A woman of 35, who had borne three full-time healthy children, contracted syphilis, and subsequently had a miscarriage at three and a half months; ten month later a syphilitic child was born dead at term. During the next year she received treatment, and after fifteen months she had a healthy full-time baby. On this account, thinking that she was now free from disease, she ceased to attend the doctor. In the following year, however, the seventh pregnancy resulted in a full-time delivery, but the baby developed signs of hereditary syphilis at the age of five weeks, both mother and child giving a positive Wassermann.

Case 2.—E. A., a girl, aged 12 years, was first seen at Out-Patients on November 17th, 1911. She was suffering from an acute polyarthritis involving the left shoulder and hip, the right shoulder and elbow, also both knee-joints. Her previous illnesses have been: Measles and whooping-cough when two years old, and scarlatina at five years of age. As a baby she was fed at the breast, and was an exceedingly healthy child.

Family history.—The father is an in-patient of East Dulwich Infirmary. His age is 45. He is a printer's labourer, and has been under treatment for mitral disease. He gives no history of rheumatic fever, shows no signs of old or recent syphilis, which he also denies.

The mother's age is 34, her health is good, she gives no history of syphilis or rheumatic fever. She has had four full-time pregnancies, no premature deliveries or miscarriages. Three children are now alive, aged 18, 12 and 8 years respectively; the fourth child died when young of diarrhœa.

History of present illness.—On November 1st, she complained for the first time of pains in various joints, especially in the right shoulder, the right elbow and in the knees. Shortly afterwards the elbow in question and the knees became swollen, very painful, and the skin around the joints was reddened. She was kept in bed, medicine was prescribed by a medical man, but as there was no improvement after fourteen days, and she was still unable to walk except with difficulty, she was brought to hospital. On the evening of November 16th, she was feverish and shivering.

On examination, the knee-joints were swollen, containing a considerable amount of fluid, and the skin around the joints was reddened. The right elbow was similarly affected. She complained of pain in both shoulders and the left hip, the left shoulder especially being very tender on movement. She was a bright child, well nourished, not especially anæmic. The mouth was clean, the fauces normal, the teeth very good. The heart's action was regular, and of normal rate. There was no cardiac murmur. No rheumatic nodules were seen. The spleen was impalpable; there were no enlargements of lymphatic glands. The skin, generally, was moist to touch, and there was a recent history of abundant perspiration. She was treated with a mixture containing five grains of sodium salicylate, and eight grains of potassium bicarbonate every four hours. After a week the effusion into the knee-joints was less marked, more especially on the right side, but there was still a good deal of pain in the knees and in the other joints affected, which were still hot and tender to the touch. Some thickening of the periarticular tissues of the knees was also to be noticed, and the diagnosis which I suggested at a meeting of the Physical Society to which she came, was that of acute arthritis deformans in an early stage, as is occasionally seen in children. In this condition she was admitted to the ward on December 2nd. By December 17th there was still more infiltration about the right elbow and the knees, movements being difficult and the effusion no less marked. Slight rise of temperature in the evenings, occasionally to 100·8°, was noted. On December 18th, effusion had increased in both knees, but more especially in the left which now contained more fluid than ever before. On December 19th, a Wassermann was returned as positive, and a second control on December 27th was an undoubted positive. The child showed no physical signs whatever of hereditary syphilis. Salicylate treatment was discontinued and mercury with iodides were given by the mouth from December 29th. The dose employed was one of fifteen minims of the liquor hydrargyri perchloridi with two grains each of potassium, sodium and ammonium iodide in a mixture five times daily. On January 10th signs of interstitial keratitis appeared in both eyes. By January 17th slight effusion alone remained in the left knee joint, all other symptoms of arthritis had disappeared, including the pain which had been so persistent. After another week, as the keratitis was very acute and showed no immediate signs of abating, we decided to employ salvarsan, my ophthalmic colleague, Mr. R. E. Bickerton, agreeing that there would be less opacity of the cornea resulting from such treatment. For this purpose arsenic was given by the mouth in the form of Fowler's solution, two minims three times a day for a week; and on January 29th, Mr. C. H. Mills kindly gave an intra-muscular injection into the erector spinæ, using ·4 grm. of salvarsan with ·1 grm. of novocain in alkaline solution as he has recommended. By this time practically all effusion had disappeared from the left knee joint, in which joint alone it had persisted. Mercurial treatment was discontinued from January 27th for a week, owing to some slight soreness of the mouth, and the same mixture was then administered three times daily. Within a week of the injection of salvarsan, the keratitis was much less marked, and from that time onwards the inflammation rapidly subsided. On March 10th a Wassermann was returned as positive. A second intra-muscular injection of salvarsan, ·2 grm. with novocain, was therefore given on March 20th. With the exception of slight pyrexia, lasting about forty-eight hours after each injection, no troublesome symptoms were noted. She was discharged from hospital on March 30th. There are no signs remaining of arthritis, nor can any trace be found in either eye of keratitis. Mercurial treatment is still continued.

Remarks.—This case is an interesting example of hereditary syphilis occurring in the later years of childhood. The following points are of interest:—

Firstly.—It reminds us of the fact that a child may be born of syphilitic parentage, may pass through the years of infancy and early childhood without showing evidence of disease until the stage of puberty is reached. It is well to remember that "Hutchinson's teeth" are absent in fully one half the cases. There are few children in the elementary schools of London, as I know from the work of medical inspection, who do not require more or less dental treatment. This child, at the age of twelve and a half, has no carious teeth, and her teeth are all well formed. Her general physique also is above the average of London children.

Secondly.—The history of the case demonstrates the value of the Wassermann test in the absence of syphilitic stigmata.

Thirdly.—A polyarthritis which involves at least six joints, which is acutely painful, associated with pyrexia and local evidence of active inflammation, is a very uncommon picture of hereditary syphilis. Mr. Fagge agrees with me that syphilitic arthritis is common among children who are the innocent victims of parental vices, but he tells me that during all the years in which he worked at the Evelina he never saw a case of this type.

My own experience confirms his, and gives me an excuse for the pernicious habit of quill-driving.

Fourthly.—The value of salvarsan in the treatment of interstitial keratitis. My ophthalmic colleague, Mr. R. E. Bickerton, tells me that it is quite common for the trouble to continue, with exacerbations, for a period of three or four months even when actively treated with mercury. In this particular case signs of keratitis appeared when the child was already receiving efficient mercurial treatment and the other symptoms of disease were abating. After nearly five weeks of mercurial treatment, the keratitis was, if anything, becoming worse. After less than a week's treatment with salvarsan the inflammation was subsiding in both eyes; in three weeks all the trouble was over, and at the present time—three months from the onset—no opacity can be seen.

Fifthly.—The absence of constitutional symptoms in a child after the intra-muscular injection of salvarsan. Apart from slight pyrexia lasting less than forty-eight hours, two restless nights due to some pain in the back which was relieved by massage and hot bottles, the child remained perfectly well all the time.

I am indebted to Mr. T. B. Heaton, until recently my clinical assistant, for the careful notes of the first case; and to Mr. Horace Steinbach, late House Physician at the Evelina, for the ward report of the second case. Mr. C. H. Mills very kindly gave an able demonstration of his method of intra-muscular injection for salvarsan. His original and valuable work upon the subject is well known and requires no testimony of mine.

Assault-at-Arms.

The Annual Competitions took place in the Pavy Gymnasium on Monday, March 4th. The attendance was very poor.

Boxing Results.

Semi-Final Feather-weights.—N. Fashen, using his left well, beat Morrish on points. Morrish was quite out of condition, but stuck to his work well. R. Don, a bye, boxed Tom Ringer.

Final.—N. Fashen beat R. Don on points. Don put up a good fight although handicapped in height and reach.

Final Light-weights.—C. Glover beat N. Maelzer on points after an extra round.

Final Middle-weights.—Galloway beat Sutton.

Interesting bouts were also given by E. A. Leviseur and S. Harrison; W. Galloway and R. Herne.

Gymnastics were very closely contested, and result was as follows:—

Buck - -	135 points.
Barrow-Clough	133 „
Bowes - -	126 „

Fencing provided an easy task for C. Bethencourt, who easily distanced all opposition.

To Phœbe.

Oh, Phœbe, is it thus you go
Along the Boro's dusty road,
Unheeding of a sister's woe
Her weary life, her bitter load.

I never thought a saint to find
In lilac print and apron white,
But I had hoped, at least, a kind,
A woman's heart kept love alight.

I hear upon your lips a damn,
I hear you say "a baby mews"
As quick you spring upon a tram,
And haste to read the footer news.

No sparrow falls unseen He said,
Who hears the Boro' baby's cry,
He stands beside the squalid bed,
He marks the mother's faintest sigh.

He sent you forth to soothe her pain,
With you His angel would have stayed;
He asked your help, alas in vain,
His angel fled to heaven afraid.

A NURSE.

[Lest "Phœbe" and "A Nurse" should go
From verse to blows upon this question,
We think it might be à propos
For us to make a slight suggestion.
Surely a gentle soul may swear,
And are not hearts for indoor wear?

Ed. G.H.G.]

Papers by Guy's Men.

E. C. Bevers, F.R.C.S.: The Inguinal Operation for Radical Cure of Femoral Hernia.—*British Medical Journal*, 6th April, 1912.

Theodore Fisher, M.D., F.R.C.P.: Dilatation of the Bronchial Tubes in Children.—*Clinical Journal*, 3rd April, 1912.

Dudley Kennard, F.R.C.S. Ed., and another: Salvarsan in Syphilis.—*Lancet*, 30th March, 1912.

David B. Lees, M.D., F.R.C.P.: A Third Series of Twenty Cases of Pulmonary Tuberculosis Treated by Continuous Antiseptic Inhalations.—*British Medical Journal*, 6th April, 1912.

D. W. Samways, M.D., D.Sc., M.R.C.P.: The Genesis of the Dicrotic Pulse Wave.—*British Medical Journal*, 6th April, 1912.

R. O. Moon, M.D., F.R.C.P.: Cardiac Disease in Children.—*Clinical Journal*, 3rd April, 1912.

J. Ashburton Thompson, M.D.: Experimental Leprosy.—*Australasian Medical Gazette*, March, 1912.

The Patient's Point of View.

The following letter from a patient is of interest, inasmuch as it describes an operation from a different standpoint from that of a surgical text-book. The grammar and spelling speak for themselves:—

Mr. B—— Sir

I am sorry to tell you that I have been compled to Go through an Opperation in my Stomack as Some of my Intrales Had Got Twisted & the Doctors Had to Cut my Stomack Oppen a Certain Length and Wideth

Sir you Might say to yourself how Can that be Done Sir I will Just Give you a little account How it was Done in the Opperating Room I had a Hot Bath & Had to Put on a New Shirt Fannel & Stockings Your Stomack as to be quite Empty befor Opperting on No not only me but others have to be served the same You have to Get on top a Step and then One to a Big Kitchen Table & on Top is a kind of sofa that you Got to lay On befor you are Opperated One Ther are 3 Doctors in the Room & 8 Nurses & a Sister Nurse in charge from New T— H— Dr X— Infirmary Doctor Ther Suppetant W— Opperator Dr A— Choleformer as to be 3 Doctors to be In Attendance ther might be more come What I know Of Dr A— cry Out are you all Ready He put his Head Over and tell me What I am to Do Keep your mouth shut and Breath Well I Obeyed is Instruction I Got Some of the chlorforme in my mouth When the Doctor told me to Give a Good Sniff I said Dam you Give me a chance to spitt it Out as It was chooking me

I had to Give a Good Sniff & up Went my Arms Out streeched & Down streeches my Legs I Remember them Catching Old Of my Hands & that all I know of the Preformae It was Quater to 3 when I Laid on the couch & Quater to 4 & I did not Remember any more Untill I found myself Put Back Into my Bed in my Ward & What time do you think it was befor I woke About 8 O'clock at Night Sir I must tell you that it is a funny Sensation you Do not Get Rid of the small for Days & Days They sowed the Place Up with Silver Wire I have still to keep my Bead & Lay on my Back I have fomentaton 3 times a Day Aso 3 at Night they use a Glass Shring With Hot Water & Carbolic they squart it Into my Stomack 3 Time a Day & Night The Supretant as took some of the stitches & it is very Painful to Bear I am not Allowed any solied food yet Sir Only milk to Drink and custard & a little Beef tea in a feader as the Nurses have to feed me as I have to Lay on my Back & Dar not Move Solid food would through me Back. The Doctors & Nurses & Sister are Very Good to me Sir I am allowed to Have Oranges to suck & acied Drops to suck after your Medcun Of course we have to Buy them when we get a Get a kind friend to send us in a Trifle My 2 Daughtor came to see me On Last Sunday for a short Time There are only 2 Person allowed in at a time but Hours is ½ past 2 to ½ four on Sunday

Sir I hope you will not be Offended With me Writing to you Sir Sir Please Excuse Led Pencill as that all I got to write With I have to get One of the Nurses to write the Envelope in Ink for me Wishing you all a mery Christmas Happy New Year.

Easter Celebrations.

There is a sound, where silence seldom is,
That marks the advent of another Easter;
And there are sights that stir the memories
Of anyone who still can boast at least a
Remnant of youth,
For Sal and Ruth,
For some unknown but surely sacred reason,
Open to-day the Maze Pond skipping season.

In Tabard Street, too, ladies in their teens
Shame with the rope the nimble Boro' nippers.
If Sparrick's Row folk live like tinned sardines,
They're certainly the very best of skippers.
Tenement, highway,
Gutter and bye-way,
From morning until midnight—yea, and after,
Ring with the rope's thwack and the leapers' laughter.

Revolved by arms made frenzied for the fray
With beer and buns and rather raucous singing,
Borrowed to make a Boro' holiday,
The clothes line keeps eliptically swinging.
Full twenty feet
Across the street
It stretches, and the plump curl-papered Clara
Pants in the middle with perspiring Sarah.

Thus maids diminutive, and maidens tall,
With young men who protest that they'll adhere to
Each other like the ivy on the wall
(A sentiment particularly dear to
Blokes in the Borough)
Mingle a thorough
Acquaintance with the ropes with such pure pleasure
As comes to those who know the use of leisure.

R.

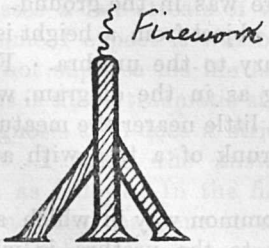
THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the Gazette *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

A Case of Traumatic Stricture.

CLINICAL LECTURE BY RALPH THOMPSON.

Gentlemen,—A search of the post-mortem records at Guy's between 1890 and 1899—that is to say ten years—shows that there are some other causes of stricture of the urethra besides gonorrhœa. The numbers of such cases are comparatively small, as shown by the figures I shall give you. Out of 52 cases in which the stricture was the cause of death, 45 were due to gonorrhœa, 4 were due to injury, 1 was due to a meatal chancre, 2 were due to gonorrhœa and injury combined. The average age at death from traumatic stricture is 44 years; the average age at death from gonorrhœal stricture is 52. So that traumatic stricture justifies a bad prognosis as to ultimate duration of life; to die at 44 years of age can scarcely be called a first-class life. So I thought we would go over together to-day a case of traumatic stricture which I have had under my care for the past nine months, to see whether the condition of things which results in the patient dying, on the average, at 44 years of age, can be improved upon.

The patient is aged 43, and is the most phlegmatic man I have ever met, and that was really a great advantage to him when it came to a question of treatment; it was also an advantage to me in dealing with him. The way in which the accident happened to his urethra was this:—



His occupation was that of firework employee. In August, 1902, he was arranging a set-piece for a firework display when it missed fire. He therefore climbed the pole to re-arrange it, when it caught alight. He slipped down the pole and fell astride of a sloping stake which had been driven into the ground so as to support the pole. The fact that the stake was sloping is important. He felt nothing at the time, but shortly afterwards he noticed a quantity of blood coming from the urethra. This bleeding stopped in about a minute, and he went on with his work. On trying to pass his water that evening he passed only a small quantity of blood and urine. He went to the hospital at Bath, where it was found impossible to pass a catheter, and so suprapubic puncture was performed. After a week, a metal catheter was successfully passed, and this was left in position for 48 hours. After its removal he could pass his water freely, and the suprapubic puncture healed rapidly. During the subsequent three months he had little difficulty in passing his water, but he had a sudden attack of acute retention, and came into Guy's under the care of another surgeon. His history is very difficult to obtain; he will not volunteer information, and he tells rather a different story every time he is asked questions by different dressers and clerks. But I think it is fair to say that since 1902 the patient, unless a catheter was passed on him, or he himself passed one, was having continual trouble with attacks of acute retention. He said that at one time he had attacks of acute retention three or four times a year; but he speaks differently now. But we may safely say he had a good many attacks, which were relieved only by a catheter being passed. But on May 24th, 1911, he came up with acute retention, and he was sent up to our department because at that time we happened to have a bed vacant, and he was then suffering from acute retention. I was called down to see him the same evening, and we decided to make a suprapubic incision, and drain his bladder suprapubically. I did this with a special object. Some of you are accustomed to hear of cases of acute retention being treated either by suprapubic incision or puncture, or by a perineal wound being made. Such an operation as that devised by Mr. Cock is done on these cases. I opened the bladder by the suprapubic route, because I wanted to have the urethra in as good a condition

as possible for any further operation which it might be found necessary to do. I did not want a perineal wound, because however clean such wounds look, they are sometimes found to be teeming with bacillus coli. A suprapubic incision then was made, and the bladder, which was nearly up to the umbilicus, was opened and drained. The patient made a good recovery from the first operation, and we let him drain for some considerable time, perhaps two weeks. I then decided to excise the stricture. The patient being in the lithotomy position, I cut down upon the urethra, found the stricture with considerable ease, and excised that portion of the urethra which carried the stricture. We confirmed at the operation what we had already found before, namely, that the stricture was more of a membranous nature than one usually associates with gonorrhœal strictures; for example, if we examine a gonorrhœal stricture we shall find that it occupies a space of about two inches, whereas this was a stricture, short, like a diaphragm or membrane.

We were able to excise only an inch of urethra, and yet get perfectly clear of the stricture on either side. But if it had been a gonorrhœal stricture we might have had to excise three inches at least. [I do not suggest that such a stricture should be excised.] The urethra was stitched up by three silk sutures being placed through the substance of the corpus spongiosum; one on the right and dorsally, one on the left and dorsally, and one ventrally. We tied them so that the edges of the cut corpus spongiosum came into contact nicely with each other. We let the patient go on draining through the suprapubic operation, so that a chance was given for the urethra to heal by primary union, and it did so practically. But I think there must have been a little leakage of urine, because shortly after he left the hospital, which he did three or four weeks after the operation, he came back and we found a small but distinct abscess there. It was a stitch abscess, and when the stitch had been removed the abscess healed up. So I think we may say this wound in the perineal region healed by primary union. I think one reason of the success was that a plug of gauze was sewn over the wound in the skin, and I think you will find it is a very useful method of dressing cases. I hear that a surgeon has written recently in one of the Medical Journals claiming the method as new. But it has been in use in France for, I think, the past 20 years. The way in which the wound was stitched up was this: I only sewed the wound up and left the ends of the sutures long, and then I tied the long ends of the sutures over a roll of gauze. That prevents contamination by fæces when they are being passed into the bedpan. That patient has gone on from that time to this without having any attack of acute retention; he has never had to pass any instrument upon himself. We pass a soft olive-headed bougie about every fortnight. So I think we may claim this case as a considerable success. The man is aged 43, he shows no sign of anything but good health, and I see no reason to suppose that he will die before his time.

The treatment of traumatic stricture by excision is a common method on the continent, but I do not think it is a common method of treatment in England.

How does a traumatic stricture occur? Why is it that it should be so fatal? In answer to the first question, I think that here a very important question in anatomy is raised. Supposing we take the patient standing erect, or sliding down the pole with his body upright, there would be a tendency for the urethra to be crushed against the pubes. If he falls against an upright stake the urethra will be injured further back than if he falls upon a sloping stake. So you see much depends on what sort of stake there was in the ground. Falling on to some such object from a height is a common cause of injury to the urethra. Falling on a stake sloping as in the diagram, would injure the urethra a little nearer the meatus than if he fell on the trunk of a tree with an upturned point.

Another common way in which an accident may happen to the urethra is where a boy climbing over a fence gets one leg over and falls with the fence impinging on his perineum. That may damage the urethra against the pubes, and it has the same effect as falling on to the trunk

of a tree. So, remember, there may be direct damage to the urethra by falling on to some foreign body, and the urethra is caught between the pubes and the foreign body and bruised, and perhaps ruptured. The urethra may also be damaged in association with a fractured pelvis. The way in which that happens is rather different. You know, from your peregrinations round the wards, that a fractured pelvis is rather like a fractured skull, in that it is a bursting fracture. It is the old question of the pelvis being an arch, not a basin. What happens when a man falls on to his feet from a height? The sacrum tends to go on falling after the man has reached the ground, so that as a result the ilio-lumbar ligament is put on the stretch very much, with the result that the beam of the ilium is smashed across the sacrum, just as a stick may be broken across the knee. In addition, there is usually a fracture in front on the opposite side of the symphysis pubes. If a fracture occurs in the region of the left sacro-iliac joint, in the sacrum or the os innominatum, it will occur on the right side of the symphysis. This last fracture obviously must be a bursting fracture, and so the urethra is torn.

That is the anatomy, so far as we are concerned, of ruptured urethra. The next question is, why are these lives such bad ones? There is a boy at the present time in the Victoria Hospital for Children who sustained an injury such as I have described to you, and various operations were done. He came under my care at the Out-Patient Department of the Victoria Hospital for Children, and he has a distinct stricture five inches from his meatus. He only passes a fair stream of water, and in five years' time I expect it will be a very bad one. I do not suppose his life is a first-class one. Why is it that a traumatic stricture offers a worse prognosis than does a stricture due to gonorrhœa? I think the answer may be summarised as follows: In the first place, let us say the accident happens to a boy of ten years of age. He has got some years' start of the man who has acquired a stricture due to gonorrhœa, so there are some years to add to his history. The man, aged 30, who comes with gonorrhœal stricture may only have had his symptoms due to stricture for five years, whereas at 30 years of age a traumatic stricture may have had a duration of nearly 20 years. Another reason is, that whilst the stricture due to gonorrhœa may be considered to be purely urethral, the stricture due to trauma must certainly be considered to be not only urethral, but peri-urethral. It is inconceivable that the urethra should be the only part damaged; the surrounding parts must also be damaged. There must also be blood clot, which becomes organized, and so there is fibrous tissue outside the urethra. Another point of difference is, that whilst gonorrhœal stricture may be three or four inches long, traumatic stricture, in many cases, is not more than quarter of an inch long. Hence, in treatment, it is possible to excise traumatic strictures where, with similar symptoms, one would undoubtedly use a catheter for gonorrhœal stricture.

I do not believe that ordinary gonorrhœal discharge gives rise to a stricture, but I think a long-continued discharge gives rise to a stricture. We know that we may be given a history of injury when there has been no injury, but the condition is gonorrhœal; but in the traumatic one can get a history of injury.

What should be the treatment for cases of traumatic stricture? I think this case is a good illustration. We may summarise the differences in treatment of gonorrhœal and traumatic strictures as follows:—For gonorrhœal stricture, catheterisation, never excision. For traumatic stricture the question of excision may well be entertained.

The next question I ask you to think about in connection with traumatic stricture is that of the immediate treatment. He came into hospital with retention. There are several methods of treatment for retention: treatment by catheterisation, by warm baths, by opium, belladonna, by opening the bladder, either suprapubically or *via* the perineum, as in Cock's operation. I do not believe that Cock's operation is one which should be done by every one. I think it is a distinctly difficult operation. Next, it is done in a very septic place; the wound is liable to be contaminated by fæces. I confess that when a patient has got retention

I am all for utility rather than for one dramatic operation done with a dramatic-looking knife; and if I cannot get into the bladder by means of a catheter, and the patient, although put to bed and hot fomentations applied to the perineum, does not pass his water, I do suprapubic drainage, making a one inch or two inch incision above the pubes, open the bladder, and let it drain. There was another reason why I did not want to do any operation on the perineum of this man with retention, and that was that I was rather hoping he might be a case suitable for excision, and it was important that the wound should heal up at once. I did not want to make a wound in the perineum which would vitiate the possibility of primary union. Therefore I made a suprapubic incision. There was no reason why a wound in front of the abdomen should get coli bacilli into it, and we were able to do an excision of the stricture, and with the exception of a stitch abscess we got primary union, which was, of course, of great importance to the patient. If we did not get primary union there was no use in doing the operation, because he would have healed up with fibrous tissue, and the condition might have been as bad as ever. But he can now take a number 11 olive-headed catheter in his urethra, and he has had no attack of retention since. So I think the excision was fully justified.

Venesection for High Blood-Pressure.

On January 24th, 1912, at 8.30 p.m., during very cold weather, I was called to see a lady who had been suddenly taken ill. Her daughter had found her at 8 p.m. sitting on the stairs, very excited and incoherent, and after getting her to bed had sent for me.

I found her talking ceaselessly, incoherent, and trying to get out of bed.

She was a thin dark woman, with a family of seven or eight grown-up sons and daughters. Has had good health during the six years I have known her, but very deaf, so that latterly her people have had to use a slate. In October, 1906, December, 1909, and again in January, 1910, I had been called in for severe epistaxis; urine healthy. I had explained to her people that it probably relieved tension, and had given Mag. Sulph., Amyl Nitrite, and Liq. Trinitrini at various times. The only thing they had noticed before this seizure was that she had been rather irritable, with a little indigestion and headache.

As some years ago I had a case with similar symptoms terminating in hemiplegia, I thought it would be well to get her blood-pressure, so borrowed a French's sphygmomanometer.

On my return I found that at 9 p.m. she had had a fit, passing urine and fæces into the bed. Her mouth was drawn to the left, and although right-handed she was struggling only with the left arm. With some little difficulty I took an observation, and found her blood-pressure to be 200 mm.

I recomended immediate venesection, and, as her people were diffident, suggested a consultation with my friend, Dr. Grierson, the owner of the sphygmomanometer.

At 10.30 p.m. we took a more accurate observation, and made the blood-pressure 210 mm., and then bled her to about 10 oz. She was retching and vomiting. Another time I should bleed with armlet on, but did not think of it at the time. After venesection her blood-pressure had sunk to 185 mm.

Next morning, 25th, when I called I found her asleep, and was told that she became quite quiet soon after we left, and had not been given the veronal I had ordered in case she were restless. Nor had she taken any of the bromide and trinitrini. At 2.30 p.m. her blood-pressure was 175 mm. She slept most of the day.

On the 26th her blood-pressure was 165 mm. They forgot to save any urine, but that obtained next day was sp. gr. 1015, no albumen. The hemiplegic condition had disappeared on the 25th.

I found the blood-pressure on February 7th, to be 170 mm., and have heard nothing further of her.

The previous explanation of the epistaxis came in usefully in persuading her relatives to allow venesection, most objection curiously being shown by a son who is a dentist. In using the sphygmomanometer, which, by the way, we call python for short, I do not screw the clip on the vent quite airtight, then after pumping enough air in to obliterate the pulse it easily returns, and can be again obliterated, so making it easier to note the exact pressure required. I send these notes because I see that Oliver mentions in his book that he has no notes of venesection in connection with use of sphygmomanometer.

FRANCIS HEATHERLEY.

University of Durham.

The following candidates have been approved at the Examinations indicated:—

First M.B.—Elementary Anatomy and Biology, Chemistry and Physics: Jap-Ah-Chit.

Third M.B.—All subjects: R. P. Ninnis.

DEGREES.

At a meeting of Convocation on March 30th, the Degree of M.B. was Conferred on R. C. H. Francis, M.R.C.S., L.R.C.P.

The Anatomy of Cervical Ribs.

By T. B. LAYTON, M.S.

(Amplified from an Advanced Anatomy Class given in the Lent Term, 1912.)

The seventh cervical vertebra has a separate centre of ossification for that part of its transverse process which lies in front of the vertebral foramen. The same piece of bone in all the cervical vertebræ of the alligator (1) remains separate throughout life. It does not require a great stretch of imagination to see that these structures are morphologically homologous one with another, and serially so with the normal thoracic ribs. This latter point was first brought forward by M. Hanauld (2) in 1740, and we may, therefore, follow Mr. Parsons (3) and call this an *atavistic* epiphysis in the seventh cervical vertebra. Sometimes the line of union of the epiphysis with the neural centre remains visible in the adult bone (4); at other times the epiphysis, though no greater than normal, never joins the rest of the bone (5), and there is then the least developed form of cervical rib. From this unjoined epiphysis up to a complete costal arch all imaginable stages have been observed.

These are not only interesting anatomically as examples of variation in the skeleton, but are also of great importance in medicine, as the abnormal rib may press on the parts in relation to it, and give rise to various pathological lesions.

I intend here to give a summary of the anatomy of the condition, and to avoid all matter purely of medical interest. I must, however, sometimes refer to symptoms or cases in order to bring out the importance of some of the facts mentioned.

First, it is necessary clearly to realise that the normal anatomy of this region is very variable. This variation affects the nerves in relation to the first thoracic rib, as well as the muscles attached to it, and may also be held to include sexual differences at the inlet of the thorax.

I. The size of the lowest trunk of the brachial plexus varies with the amount of fibres passing to it from the upper thoracic nerves. This, again, depends upon two factors: first, the segments of the spinal cord from which the nerves to the upper limb arise; and secondly, the presence or absence of the lesser internal cutaneous nerve.

The brachial plexus is usually formed by the anterior primary divisions of the four lower cervical nerves and the greater part of the anterior primary division of the first thoracic. Twigs from the fourth cervical and second thoracic may either or both be present. According to the size of these latter twigs, the origin of the brachial plexus may be divided into a *prefixed* or a *postfixed* type. In the former, the branch from the fourth cervical is large, that from the second thoracic is absent, and that from the first thoracic is small. In the postfixed variety the branch from the fourth cervical is absent, that from the first thoracic is large, and that from the second considerable. In this type the size of the nerve passing through the inlet of the thorax, and of the lowest trunk of the brachial plexus, is much greater than in the prefixed variety.

Some of the fibres from the first thoracic nerve leave the inner cord of the brachial plexus as the lesser internal cutaneous nerve to supply the skin of the upper and back part of the inner side of the arm. This nerve may be absent, and its place is then taken by a lateral cutaneous branch of the first intercostal nerve passing across the skin of the axilla in the same way as does the intercosto-humeral nerve (6).

These variations have recently been investigated with much care by Dr. Wood Jones (7), who shows that the depth of the groove on the first rib is directly proportional to the amount of the thoracic nerves going to the plexus. He says, further, that if the part be dissected with the limb by the side of the body, the nerve occupies the groove to the exclusion of the artery. I think the truth rather to be that both structures lie in this groove, the artery anterior and running straight across the bone, the nerve running from above and behind more obliquely downwards, forwards, and outwards. That the nerve does lie in this groove is apparent if the part be studied from inside the thorax, where it will be seen going round the inner margin of the bone to the back part of the subclavian groove. Dr. Wood Jones, however, partially is supported by Mr. Wingate Todd, of Manchester (8), who finds the nerve frequently in the groove on the right side, but not on the left, and thinks this is due to the lower position of the shoulder on this side associated with the increased work of the right upper limb.

II. This last observer has also drawn attention to variations in the scalene muscles, pointing out how an extra slip—the scalenus minimus—may pass forward from the scalenus medius in front of the nerves to be attached to the bone between these and the artery, or how the insertion of the scalenus medius may be expanded forwards under both nerve and artery, almost to meet the scalenus anticus. Mr. Saner drew my attention last term to a similar variability in the attachment of the first digitation of the serratus magnus; in two bodies he traced the origin of this slip forwards as far as the place where the subclavian vein crosses the bone.

The importance of the variations in the nerves will be apparent later. The muscular variations are so common in this region of the neck that it is impossible rigidly to describe any normal arrangement.

Therefore, when rare cases are mentioned with symptoms resembling those caused by a cervical rib, said to be due to abnormalities of the soft parts, they must be approached with the greatest scepticism. For, if variations of soft parts can cause pressure symptoms on nerves, we should expect the nerves to be pressed on in a large number of cases in regions subject to great variation. Again, examples are seen in other parts of the body of nerves turning round bony points through fibrous arches, and in these parts no cases are described with symptoms of pressure on nerves without any associated pathological lesion as a cause. We do not hear of cases of ulnar or peroneal paralysis from variations of muscular attachments at the elbow or knee. Yet in these parts also the muscles and fasciæ vary between individuals and in the same individual at different times according to the amount of work recently done by the muscles concerned (9).

III. Sexual variations of the inlet of the thorax.—As Mr. Lane has long taught, the proportion of the length of the manubrium sterni to that of the gladiolus is greater in the woman than the man. This is associated with her greater capacity for thoracic respiration rendered necessary by the fact that there should be a period in her existence when abdominal respiration is impossible. I think that another factor in this increased thoracic respiration may be an increased range of movement in the first costo-vertebral joints.

Posteriorly the anatomy of cervical ribs is constant; they articulate by a head with the body of the seventh cervical vertebra, and by a tubercle with the transverse process of the same vertebra which has the shape of a thoracic transverse process. When longer than the normal transverse process of the seventh cervical vertebra, the rib has an angle and turns forwards, but this turn is generally more acute than in other ribs, so that the abnormal one encroaches more on the inlet of the thorax than does the first thoracic. From this the rib may pass any distance forwards, and either join the first rib or be prolonged forwards to the sternum as a complete costal arch.

When the bone joins the first rib, it either fuses with it or is firmly joined on to it by fibrous or fibro-cartilaginous tissue (10). When it fuses with the first thoracic rib this latter may be thickened in front of the point of junction (11) as though the cervical costal arch were complete, but its anterior half were blended with the first thoracic costal arch. A similar blending of ribs is not infrequently seen in the thoracic region (12). When there is a complete cervical costal arch distinct from the first thoracic, the cervical rib may pass right round the neck and join the sternum by a costal cartilage, or it may be continued on to the sternum as a piece of fibrous tissue only (13).

When a cervical costal arch is present, the lowest trunk of the brachial plexus, the subclavian artery, and the subclavian vein, all pass over it in their course between the thorax and the limb. As the nerve is most posterior, it will most frequently be in relation to the supernumerary rib, and symptoms may then arise both of a sensory or a motor character. The artery lies next anterior, and is, therefore, next most often implicated. When the rib is long enough the scalenus anticus is also attached to it, the vessel fits (14) into the acute angle between this muscle and the rib, and may be pressed on, so that a difference of the radial pulse on the two sides is observed, and a pulsating swelling is felt in the neck. More anterior still lies the vein, and this, therefore, is involved (15) least often; further, there is no muscle attached anterior to this, so that its expansion upwards is in no way hindered.

Besides the scalenus anticus, the scalenus medius obtains an attachment to the supernumerary rib, and internal and external intercostal muscles are found between it and the first thoracic rib. The structures of this intercostal space have been observed to be supplied both by the eighth cervical and the first thoracic nerve and by a branch from the deep cervical artery which passes backwards between the necks of the cervical and first thoracic ribs (16).

The head of the first thoracic rib may, in these cases, articulate with the seventh cervical vertebra as well as with the first thoracic, and the twelfth thoracic rib may be absent (16). Therefore, in the X-ray examination of these cases the only ways to be sure that the case is a supernumerary rib and not a deficient first thoracic is to count the vertebræ downwards from the skull and to examine the relations of the ribs to the sternum.

I have several times referred to these deficient first thoracic ribs. Many have been described by anatomists (17), though there are not many on record as having caused any clinical symptoms (18). When present, their anatomy is the same as that of a supernumerary rib. The clavicle is seen to articulate with the sternum only, unless the costal cartilage is present, in which case the costal arch is deficient in its middle part only.

Dr. Wood Jones has suggested that these cases are really much more frequent than is supposed, and that in cases of true cervical rib the subclavian artery will be found beneath it. He gives, however, no reference to any case where it has taken this course, and a study of the dissected cases seems to show that the artery always goes over the supernumerary costal arch.

By post-mortem dissection, cervical ribs have been found as often in men as in women, and as often on the left side as on the right (19), and, therefore, no anatomical description is complete which does not attempt to explain why every case of cervical rib does not give rise to symptoms, and why the cases with symptoms are more frequent in women than men,

and on the right side than on the left, and why these symptoms never arise before adult life.

The subject opens up the question of the growth of osseus tissue, one of far greater importance than the mere removal of some small pieces of bone from the necks of patients with pain in the arm. And yet, fully to understand the clinical side of these cases, their relation to the wider aspect of growth must not be forgotten.

Though osseus tissue is the densest and hardest in the body, yet in its growth the shape of a bone is determined by the soft structures around instead of the position of these structures being altered by the growth of the bone. The muscles actually cause the grooves found on the lower end of the radius. On the under side of the mastoid process is a deep groove formed by the occipital artery. We know that the varying directions and depths of the grooves on the articular and transverse process of the cervical vertebræ are proportional to the size and directions of the different divisions of the cervical nerves (20), and the same structures probably cause the subdivision of the lumbar transverse processes into mammillary and accessory tubercles (21). When a developing skull bone comes in contact with a nerve, it grows around this structure and forms a foramen or canal for its passage instead of pushing it aside. These facts are examples of the rule that when a bone is developing, absorption of osseus tissue occurs *pari passu* with its deposition in other parts (22).

On these facts Wood Jones (23) has enunciated the theory that the number and size of the ribs in the mammalia are dependent upon which nerves pass out to form the limb plexuses and their direction as they so pass. Following this line of thought we find that cervical ribs are often associated with a prefixed type of brachial plexus, and the supposition is that a deformed first rib is associated with a postfixed type, so that the large branch from the first and second thoracic nerves occupies the position of the developing first rib, and, so to speak, presses this down upon the second rib, in the same way as the normal lowest trunk of the plexus presses the cervical rib when present against the first thoracic rib. Further dissections are necessary to prove this theory, but so far as the facts go they serve to support it, and to explain the want of selection as to side and sex of the extra rib.

If these things be so, we must look for some change in the anatomy of this part which takes place between adolescence and adult life. This is seen in the relative lowering of the whole pectoral girdle upon the thorax which occurs at this period. The clavicles in the adult come to lie in a more horizontal position than in the child, in whom the outer end is relatively higher than is the inner end, and with the clavicles the whole shoulder region, and, therefore, the structures passing from the neck to the axilla, lie relatively lower.

This settling down of the pectoral girdle probably is due to the increased work done by the limbs, so that the clavicle comes into closer relation with the first rib, and transmits the weight from the upper limb to the trunk through this relationship (24).

We have already seen that one observer has found a closer relation of the brachial nerves to the ribs on the right side than the left, and this supports the view here put forward. That the use of the limb is a factor in causing the symptoms of cervical rib is well known, and is particularly well seen in one of Thorburn's cases of a woman who was found to have bilateral cervical ribs.

"A woman, aged 35, had had pains in her upper limbs ever since childhood, but they had not progressed in the last ten years. Five months before she was seen, her child, aged 5, was found to be suffering from a tuberculous ankle. She started carrying the child about on her left arm, while she did her work with the right. A month later, wasting of the left thenar eminence began, and the wasting spread rapidly to the other muscles." (25).

These points explain the onset of symptoms in adult life, and their greater frequency on the right side. But they do not explain why every individual does not get pains in the arm. We may assume that in those cases with symptoms the brachial plexus arises from nerves relatively postfixed to the bones present. Further dissections will prove or disprove the truth of this assumption. With it we can sum up the cause of symptoms in cases of cervical rib and allied conditions by saying that they are due to the forces exerted on the upper limb dragging on to the inlet of the thorax a brachial plexus which is postfixed relative to the degree of development of the costal arches.

These arguments have left untouched the fact that more cases occur in women. The causation of this is not so easily explained. It may be associated with the differences in thoracic respiration outlined above; or it may be that the settling down of the pectoral girdle is greater in woman than man. I know not whether this is the case, although everyone has seen the graceful bottle-shaped neck and shoulders of young ladies in evening-dress. Further research in the variations of the skeleton may bring out some distinct difference in the inlet of the thorax in the two sexes.

I have in this paper brought forward facts which show that it is not enough for the student of medicine merely to learn the most usual structure of the human body. Clearly to understand the pathological conditions which may arise, they must also become acquainted with the variations of structure present in every individual as well as the differences between the sexes, and the changes which occur in the growth of the child up to adult life. A study of the laws

of growth, so far as they are known, is also of extreme importance.

References and Notes.

1. See the skeleton of any alligator or crocodile, *e.g.*, R.C.S.M., Phys. series, Nos. 711 and 2186a.
2. Mém. de l'Acad. Roy. des Sci., 1740, p. 377.
3. Jour. Anat. and Phys., vol. 38, p. 248.
4. Guy's Hospital Museum, 3681 (left side).
5. Ibid. (right side).
6. Birmingham, Jour. Anat. and Phys., vol. 30, p. 63. Without specially looking for it, I have seen this branch twice in the last eighteen months.
7. Jour. Anat. and Phys., vol. 44, p. 377, and vol. 45, p. 249.
8. Jour. Anat. and Phys., vol. 45, p. 293.
9. There is, however, a well-recorded case where a normal first rib caused symptoms similar to those due to a cervical rib. See Murphy, Australian Med. Jour., vol. 15, p. 582. For cases of abnormal first ribs see below.
10. G.H.M. 3681 suggests that these ribs may end free in the neck. A study of dissected and operation cases shows that this is not so, but that they are always attached anteriorly (see Sir William Turner, Jour. Anat. and Phys., vol. 4, p. 130, and vol. 17, p. 384, and Thorburn, Med. Chron., Manchester, 1907—8, p. 165, and R.C.S.M., 505 terat.). The point is surgically important, as in removing the rib the anterior end must be cut away as well as the posterior.
11. G.H.M. 3682.
12. G.H.M. 3683; R.C.S.M. 506 terat.
13. See Sir William Turner's cases, loc. supra cit.
14. Keen, American Jour. Med. Sci., vol. 133, p. 173.
15. Thorburn, loc. supra cit., case vi., and Dr. Fenton's case of abnormal first thoracic rib mentioned below.
16. Sir William Turner, first paper.
17. Spec. R.C.S.M. 505a, terat. series, is from the case described and figured by Dr. Wood Jones in his paper in vol. 45 of the Jour. Anat. and Phys., where references to other dissections may be found.
18. Keen quotes a case (loc. supra cit.), and Dr. W. J. Fenton showed one at the Medical Society of London last month.
19. Gruber, quoted by Sir William Turner.
20. Wood Jones, Jour. Anat. and Phys., vol. 46, p. 41.
21. Isdem. A paper read at the Anatomical Society in February and not yet published.
22. See the experiments of John Belchier, Duhamel, John Hunter, and Sir George Humphry, and the lectures of Professor Keith, *passim*.
23. Jour. Anat. and Phys., vol. 44, p. 347.
24. Mr. Lane's anatomy lectures.
25. Loc. supra cit., case ix.

Cerebral Localisation.

Paper read before the Physiological Society by Mr. A. H. Harkness.

When the belief was established that the cerebrum was the organ of the higher psychical activities, there arose naturally the question whether different parts of the cortex have different functions, corresponding to the various faculties of the mind, or whether the cerebrum is functionally equivalent throughout, in the same sense, for instance, as the liver. The most important discussion on the subject began in the 19th century. At the beginning of the century, Joseph Gall, a physician in Vienna, began to teach publicly his system of cranioscopy, or phrenology. Gall was convinced that the different faculties of the mind are mediated through different parts of the brain, and he devoted the whole of his life to establishing this view. Gall and his disciples, Spurzheim in particular, contributed many important facts to the finer anatomy of the brain. Gall conceived that the more developed any given mental quality is, the larger will be the organ corresponding to it in the cerebrum, and since the cranium fits closely to the cerebrum, the relative prominence of the parts of the cerebrum may be judged by a study of the exterior of the skull. While the general idea of this method can be defended, it is obvious that the application of it scientifically is practically impossible.

During the latter part of Gall's life Flourens began his celebrated work on the functions of the brain. The beginning of the modern view of cerebral localisation is found in the works of Fritsch, Hitzig, Ferrier, and Flechsig. The first outcome of this work was to lead to an extreme view of localisation of functions in the brain. The more recent work, however, has tended to modify these extreme views. Although the different regions mediate different functions, an injury in one part may influence, to some extent, the functional value of other parts.

The methods used for localising the functions of the cerebrum are very numerous. Fritsch and Hitzig stimulated directly the various parts of the cerebral cortex, whilst others made use of the histological

method, the myelination method, or the destruction method. Many important facts have also been obtained from observations of symptoms in brain diseases. The histological method seems to be favoured by the modern physiologist. Detailed examination of the cerebral cortex shows different structures for different regions, and these structures are said to be constant for any given region, or, as Bolton says, "the structural modifications of different regions possess in all cases a functional significance."

Bolton divides the cerebral cortex into five layers, namely, outer fibre, outer cell, middle cell, inner fibre, and inner cell. To show the great value of this method, consider for a moment the closely-related visuo-psychic and visuo-sensory areas of the cerebral cortex. The visuo-sensory area surrounds the calcarine fissure, and within its middle cell layer is a special band of fibres known as the "white line of Genari." At the periphery of this area, where it passes in each direction into the cortex, we have the visuo-psychic area, an area which shows no line of Genari. Long-standing or congenital blindness causes no modification of the visuo-psychic structure, which fact proves that this region possesses no visuo-sensory functions.

Comparatively speaking very little difficulty has been experienced in localising the motor areas of the brain, whereas the delimination of the "sensory spheres" and "centres of association" is a matter of very considerable difficulty. Flechsig, by studying the exact period of myelination of different parts of the cerebrum in the human fœtus and infant, found that the "sensory areas" myelinate earlier than the "association centres." He also says that the sensory centres possess a well-marked system of projection fibres—those fibres which are connected with the underlying parts of the central nervous system, whereas the "association areas" show very few deep connections, their only functions being to bring into connection the various motor and sensory centres of the cortex.

Of the *sensory spheres* he describes four: (1) Body sensibility; (2) Visual; (3) Auditory; (4) Olfactory and gastatory.

The *association areas* may be regarded as the regions in which the different sense impressions are synthesised into complex conceptions. Flechsig describes four centres of association: (1) Frontal; (2) Parietal; (3) Temporal; (4) Insula. (The frontal lies in front of motor area. The parietal lies behind the area of body sensibility.)

Flechsig suggests that the temporal and occipital areas are concerned particularly in the organisation of experiences founded upon visual and auditory sensations, and shows special development in cases of talents such as those of the musician, which rests upon these experiences. In the frontal associational region there is possibly located the conception of individuality, the idea of the self as distinguished from the external world. In support of this, Bolton has shown that the brain of the insane, on histological examination, shows a distinct wasting of the cortex, and that the maximal focus of wasting is found in the frontal associational area.

These views of Flechsig have been severely criticised by Hitzig, Vogt, and Bianchi. Bianchi is of opinion that the only region of the brain which can be regarded as purely associational in function is the frontal area, an area which is acknowledged to possess no projection fibres.

In the posterior part of the inferior frontal convolution there is a supposed specialised part of the brain known as "Broca's area," in which is located the speech centre. Lesions of any kind affecting this area destroy more or less the ability to use appropriately spoken words, and clinical evidence has shown that this motor aphasia may be exhibited in all degrees of completeness and in curious varieties. Pierre Marie has expressed the opinion that the whole of the accepted doctrines regarding aphasia require reconsideration. He distinguishes in the orthodox manner between motor aphasia, or the aphasia of Broca, sensory aphasia, or aphasia of Wernicke, and "anarthria," or subcortical motor aphasia of Déjérine.

In the first of these conditions the patient is described as being unable to speak, although he understands what is said to him. In the second condition the patient is described as being able to speak in a more or less intelligible way, but to have more or less marked impairment of intelligence. In the third, the only disability which exists is loss or affection of the power of articulate speech.

As the result of his investigations Marie considers that only one form of true aphasia exists, namely, that of Wernicke, and that the so-called aphasia of Broca is the aphasia of Wernicke + anarthria. He considers that Broca's area is not concerned with the function of speech, and that the area of Wernicke, namely, the supra marginals, the angular gyri, and the hinder portions of the first and second temporo-sphenoidal gyri, is the site of the lesion which caused true aphasia, and that a lesion of the lenticular zone is the cause of anarthria. Thus, Marie does not deny the existence of pure motor aphasia. He terms it anarthria, and locates its lesion in the lenticular nucleus, but he goes farther and *denies* that pure motor aphasia can also occur in consequence of a lesion in Broca's area.

Sir Victor Horsley published in the *British Medical Journal* an article on the pre-Rolandic or so-called motor area of the brain.

It has been thought that the Betz cells of the pyramidal cortex are those concerned in efferent im-

pulses. Sir Victor Horsley located as accurately as possible by stimulation the part of the precentral gyrus which produced movement of the upper limb. He then removed this located part and examined it microscopically. He found that very few Betz cells were present, which proves that they are not absolutely essential for motor impulses.

Experiments have been done to prove that voluntary movements are not only generated from the brain through the so-called motor area, or precentral gyrus, but must also be subserved by other parts. The rubro-spinal tract or Monakow's bundle constitutes a primary efferent tract between the basal ganglia and spinal cord. It constitutes an axial point in the path of nerve impulses ascending from the cerebellum to the mesencephalon, and then to the spinal cord. Horsley says it would be interesting if it were possible to classify the movements which return after the removal of the so-called motor area. Goltz *has removed the cerebral cortex of a dog, and a large* portion of the anterior region of the thalamus. He found that the animal could stand and walk with the greatest of ease, so the conclusion that one may come to, at all events in dogs, is that movement can be adequately performed by the cerebellum, mesencephalon, and spinal cord acting together.

The pre-Rolandic area is by no means only motor in function. After it has been removed in animals there is a well-marked loss of sensation all over the body, being especially well-marked in the limbs. It is thus quite clear that the so-called motor cortex is a sensori-motor structure, of which the motor element is the outlet for afferent impulses coming from many parts, especially from the post-Rolandic area or post-central gyrus and the optic thalamus.

Before concluding, I wish to say a few words on phrenology.

I have already briefly alluded to Gall and Spurzheim, pioneers in the study of phrenology and cerebral localisation. Gall contributed many important facts to the finer anatomy of the brain, and, according to phrenologists, it was he who located the so-called Broca's area. Odell, a modern phrenologist, says, "As a boy at school Gall was struck by the fact that those of his companions who were clever at putting words to memory had eyes placed prominently in their heads. Later, as a medical student, he found that the third frontal convolution rested on the horizontal plate of the frontal bone, and that when large it was accommodated by a depression on this bony plate, which forced the eyeball downward and forward, causing in persons of a certain physical condition, a "roll" of flesh under the eye. A large number of observations convinced him that the appearance of the eyes was, in general, an index of the size of this convolution of the brain, and that the size of the convolution was proportional to the power of speech."

I have endeavoured to study the phrenologists' chart, but have not seen many bumps which correspond to the physiologists' idea of the brain; for example, they place no less than eleven bumps on the sagittal suture, a region where the brain is deficient owing to the great longitudinal fissure. The only depressions on the internal surface which could possibly produce a swelling on the superficial surface in this region are those made by the superior longitudinal sinus and the Pacchionian bodies.

In man the frontal region is the best developed part of the cerebral cortex. Bianchi, as I already mentioned, emphatically states that it is the only region in the brain which is purely associational, and that the greatest intellectual power is characteristic of the man with the greatest frontal development. Therefore, I think that the phrenologists have good grounds for localising the reflective faculties in the frontal regions of the brain.

In concluding, I am convinced that a phrenologist does not base many of his facts either on the gyri of the brain or on the "bumps" produced by them on the exterior. He bases his results more on the appearance of his patients, and would be absolutely incapable if he had to perform after having been first of all blindfolded.

A Case from Lazarus.

The following case is interesting as illustrating the connection between obstruction of the lower end of the ileum ("ileal kink") and duodenal ulceration.

C. F. J., æt. 56, a commercial traveller. He had had good health up to two years ago. About that time he began to have epigastric pain after food. The pain was worst, as a rule, in the afternoon and evening. It was relieved by vomiting. Latterly the vomit has been dark brown in colour, but he has never actually recognised blood in it. His symptoms were much worse in the last few months, and he began to lose flesh rapidly. His bowels have been open regularly.

He is a dark-complexioned, pale and spare man. The skin was dry and harsh, and stained under the eyes and axillæ. There was an ill-defined mass to be made out just below the right costal margin in the region of the duodenum. The lump was moderately tender on palpation. On pressing deeply into the right iliac fossa at the outer border of the right rectus, a point of extreme tenderness was found.

Mr. Lane saw the case and diagnosed duodenal obstruction, probably due to a carcinoma, associated with a "kink" at the lower end of the ileum.

He was then examined radiographically by Dr. A. C. Jordan, to whom I am indebted for the following account and the accompanying illustrations.

"The X-ray examinations revealed a very definite train of changes. The stomach was greatly hypertrophied and dilated; very active peristaltic waves passed to the pylorus, but were unable to force more than traces of bismuth through the pylorus, this region being obviously the seat of fibrous stenosis. The diagnosis of stenosis was still further confirmed by the occurrence of a series of strong antiperistaltic waves starting at the pylorus and working along the stomach toward the fundus. This is a phenomenon rarely seen, and is considered to afford conclusive proof of pyloric stenosis, though the proof was perfect in the present instance without the occurrence of anti-peristalsis. After twenty-four hours more than half the bismuth was still in the stomach; there was a small collection of bismuth at the lower end of the ileum, and in the terminal coil of the ileum which rose as shown in Figs. 1 and 2. The terminal coil was found to be firmly fixed to the back of the abdomen at a point three inches from its termination. On pressing with the hand upon the terminal coil the kinked point was found to be absolutely fixed, while the parts immediately above and below the kink were freely movable. The result of manual pressure was to convert the angle of the kink from an obtuse to an acute angle. In the upright posture the cæcum fell, carrying down with it the upper three inches of the terminal coil; the portion of coil above the kink now hung down, forming a genuine sharp angle such as must inevitably have produced obstruction. No better illustration could be had of the fact that an ileal kink may only cause obstruction when the patient is upright. The appendix was shown at this, and at another examination forty-eight hours after the bismuth meal. It was placed immediately above and external to the kink, and it appeared normal. At this latter examination (forty-eight hours) there were still traces of bismuth in the stomach. There was considerable stasis in the large intestine, the greater part of the bismuth being still contained in the transverse colon at the end of seventy-two hours. A definite diagnosis was accordingly made to the effect that the patient had fibrous stenosis at the pylorus or just beyond it, and that he had a well-defined ileal kink three inches from the end of the ileum, while the appendix was apparently normal."

Description of Figures.

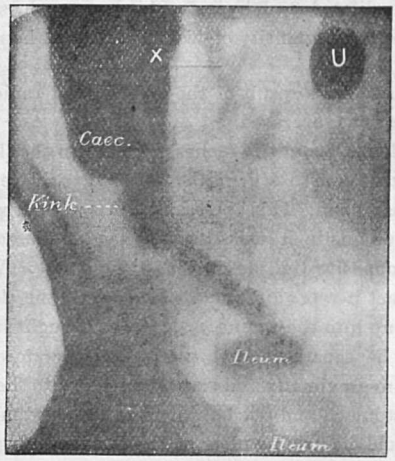


Fig. 1.

[Fig. 1.—Ileal kink, taken 24 hours after a bismuth meal. **U** umbilicus, marked by a penny. The **X** marks the ileo-cæcal entrance.]

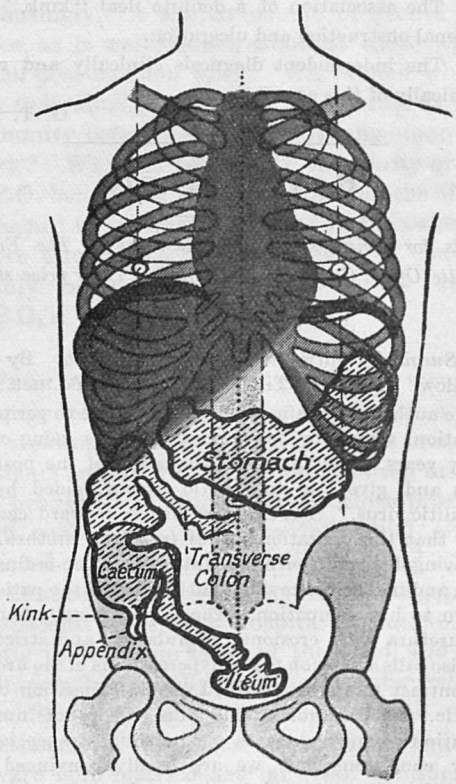


Fig. 2.

[Fig. 2.—Fluorescent screen tracing, taken at the same time as Fig. 1; the cæcum is displaced to the right to

show the normal appendix. The ileal kink is shown; also the dilated and hypertrophied stomach, still containing a large quantity of bismuth after 24 hours.]

Mr. Lane, as a result of the clinical and radiographic examinations, operated.

The ileum, about two inches proximal to the ileo-cæcal valve, was found to be firmly bound down to the pelvic brim by a broad band. This band which was about two inches broad and one inch long was attached to the gut on the aspect opposite the mesenteric attachment. Whilst it was intact it was quite impossible to pull the ileum and cæcum up into the wound. Mr. Lane thought it was too firm to be separated with safety and therefore divided the ileum proximally and transplanted it into the rectum.

The stomach and duodenum were then examined and a large old cicatrizing ulcer of the duodenum was found. As there was a very considerable amount of duodenal obstruction a posterior gastro-jejunostomy was performed

The points of particular interest in the case seem to be:—

1. The association of a definite ileal "kink," with duodenal obstruction and ulceration.

2. The independent diagnosis clinically and radiographically of this association.

G. T. M.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

A Surgical Treatment of Locomotor Ataxia. By L. N. Denslow. (Baillière, Tindall & Cox.) 3s. 6d. net.

The author maintains that "Tabes is due to peripheral irritation, which, by continuous impulses going on for many years, culminates in exhaustion of the posterior roots and give rise to tabetic lesions, aided by the syphilitic virus." Dr. Denslow brings forward cases to show that this irritation comes from the urethra. By removing this condition he is able to relieve inco-ordination, pain, and incontinence sufficiently to allow the patient to return to his occupation. The lesions usually found in the urethra were erosions, granulation, and strictures. He also calls attention to the hyperasthesia of the urethra, in contrast to the diminished general sensation of the tabetic. The author applies his theory of urethral irritation to such cases as melancholia, dyspepsia, and other conditions, but we are hardly convinced that suggestion does not aid in the good results obtained. We feel sure that this book will be read with interest, not unmixed with scepticism, by all who are concerned in the problem of Locomotor Ataxia.

University of London.

RECOGNITION OF TEACHERS.

The following have been recognised as Teachers of the University:—

Dr. H. C. Cameron as a Teacher of Medicine and Diseases of Children.

Mr. M. F. Hopson as a Teacher of Dental Anatomy.

Mr. E. C. Hughes as a Teacher of Surgery.

Mr. J. L. Payne as a Teacher of Dental Mechanics.

Mr. R. Wynne-Rouw as a Teacher of Dental Surgery.

Mr. G. Rowell as a Teacher of Anæsthetics.

Mr. G. H. Ryffel as a Teacher of Forensic Medicine.

Mr. R. Thompson as a Teacher of Surgery.

Gazette Special Pathologist.

NOTICES.

All specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Specimens, Letters, and Postal Orders should be addressed to the Manager, Gazette Office, Guy's Hospital.

Birth.

FULLER.—On April 7th, 1912, at "Scandia," Birchwood Road, Parkstone, Dorset (private address), the wife (née Kempff) of Frederick Holcombe Fuller, M.R.C.S. Eng., L.R.C.P. Lond., L.D.S., R.C.S. Eng., of a daughter.

Marriage.

DARKE—HOWLAND.—On March 27th, at Harpenden Congregational Church, by the Rev. Leonard Dowsett, Sydney John Darke, M.B., B.S. Lond., third son of the late Samuel Darke, of Highbury, to Christine Adela, daughter of Christopher Howland, of Harpenden, Herts.

Deaths.

BAILLIE.—On March 20th, at Acacia Road, St. John's Wood, Robert Alexander Baillie, M.R.C.S., L.R.C.P.

KINGSFORD.—On March 31st, Edward Claude Kingsford, M.R.C.S., L.R.C.P., of Carntyne, Cricklewood, N.W., aged 50, eldest son of the late C. W. Kingsford, M.D., of Upper Clapton, N.E., and of Mrs. Kingsford, of The Mount, Brightling, Sussex.

MINNS.—On March 31st, Pembroke Robert Joseph Bunch Minns, M.D., of Thetford, aged 71.

Edrs.—E. G. S. & A. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 622.] APRIL 27, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	161–163
Prizes and Scholarships	163
Papers by Guy's Men	163
Is it wise to Remove the Appendix when there is a Localised Abscess?	164–167
Pass List	167
Empyæma. Clinical Lecture by G. Newton Pitt, M.D., F.R.C.P.	168–173
Appointments	173
A Case of Idioglossia in a Child aged 5 ...	173–174
Gazette Special Pathologist	174
A Lamp Bearer	175–176
Correspondence	176
Surgery in the time of Astley Cooper ...	176–177
The Surgery: As it might be, an it would ...	178–179
Change of Address	179
Reviews, etc.	179–180
Notice	180

Passim.

IS there not a large field for bacteriological research latent in the sweepings of the Surgery and Out-Patient Hall? Has the dust which daily accumulates there ever been analysed from a microbic standpoint and its varied constituents isolated and described? It is probable that the medley of micro-organisms which would thus be revealed would be as startling as it would be multifarious, and those of us who work there might receive severe shocks to our equanimity. The research need not, however, cease at the classification of the flora, with probably an admixture of fauna, of these bye-products of hospital work; the question would then arise as to the degree of immunity in regard to these micro-organisms which is possessed by the workers amongst them. The opsonic indices of O.P.O.'s, dressers, nurses, &c., in respect of these daily companions of their labours should then be investigated, and valuable contributions to the whole subject of immunity might thus be obtained.

THE immunity to disease which is developed amongst those who live in a hospital is a problem which we fancy has not received the consideration it deserves. It is a commonplace of observation that when a man first commences work in the wards he finds himself much more easily tired and liable to minor ailments than he would be with equal work under other surroundings. In other words, the microbes against whom he is learning to wage war are exacting their first toll from him and he suffers accordingly. Rapidly, however, he acquires comparative immunity towards them, and by the end of his course he is very much better opsonically adapted to his surroundings, and benefits accordingly. A similar course of events takes place, as is well known, amongst those who do much post-mortem work. We wonder whether any individual has actually been tested as to his immunity before and after entering upon such work? Why not record the immunity of each O.P.O. before and after his three months of duty in regard to the microbes found in the sweepings above alluded to? We postulate, of course, a keenly bacteriologically enthusiastic set of O.P.O.'s.

FROM the theoretical point of view the average hospital is about as unsuitable a place for treating disease as could well be imagined. Patients suffering from the most varied diseases are brought into comparatively close proximity with each other, and the individual already afflicted with one complaint is thus laid open to the chance of accumulating others. Again, the out-patient work of a hospital is bound to be septic in the wide sense of the term, and yet it is impossible wholly to separate the working of this department from that of the wards. Furthermore, the necessary routine conduct of a ward is in many cases far from conducive to the production of the best conditions for recovery of the various patients. Nevertheless, such hospitals continue, and, taking them as a

whole, there is no doubt that they are most efficient agents for the promotion of public health and the extermination of disease. Much of this is due, no doubt, to the fact that the class with which they deal lives under such wholly insanitary conditions that a hospital, imperfect though it be, is a great step in advance from their point of view; but we doubt whether an ordinary hospital, in regard to medical cases at any rate, would produce such good results in dealing with the middle or upper classes as patients.

The future, however, will surely bring great changes in the arrangement of hospitals, both as to situation and as to internal administration. It is not difficult to foresee the development of hospitals built on a detached system, and situated in a healthy country district. Such hospitals would be in direct connection with out-patient dispensaries located in populous districts, and by means of rapid motor conveyance a large proportion of the cases of serious illness could be at once conveyed from the dispensary to the healthy hospital. The dispensary itself would, of course, require wards for emergency cases, but its main work would be the treatment of medical and surgical ailments and the supplying of the distant country hospital with suitable cases. There can be little doubt, therefore, that as time goes on even such landmarks as Guy's will divide up their work and betake the better part of themselves to a more invigorating and health-giving environment.

We have before referred to the necessity for adding yet another to the many and gaily-coloured slips which pass from hand to hand in the out-patient department; namely, one on which the names and particulars of cases to be sent to the R.S.O. could be written, and we have hopes that this reform may yet be accomplished. There, are, however, several other points connected with the literary branch of out-patient work to which we should like to draw the attention of the authorities. A single day's experience in the Surgery is sufficient to impress vividly upon the mind the large number of cases of Tonsillitis which are seen and given O.P.O. papers. Now the treatment of tonsillitis, at any rate when first seen, is almost invariably a matter of routine, and in a day's work an O.P.O. may often write out dozens of identical prescriptions. Why, therefore, should not the example of the slips for fomentations be followed, and a printed paper provided with the necessary medicine, lozenges and purge written upon it, alternatives being given as on the fomentation slip?

It may, perhaps, be said that this would be a step towards the deterioration of treatment to a mere mechanical handing out of different coloured slips for each set of symptoms, but we maintain that there is no danger of such automatism. By all means let an originally-minded O.P.O. compose the most variegated prescriptions for each and every tonsillitis if it so pleases him on the ordinary green slip, but for the sake of rapidity of work and the diminution of the already enormous amount of purely clerical work he has to do, let him at least have the opportunity to save himself time and labour in this way. He is officially discouraged from using other than the recognised hospital mixtures, and rightly so; the innovation we indicate is based on the same principle and would, we are sure, be highly appreciated.

We would further suggest that the treatment of skins could be considerably simplified by the introduction of printed prescriptions for Lotio Lysol and Ung. Hyd. Ox. Flav., the invariable treatment for the never-ending stream of impetiginous cases. The fomentation prescription slip bears at present the alternatives of Boracic or Lead and Opium Lotions, but the latter is now only very occasionally made use of. Would it not be better to substitute Lotio Lysol and Ung. H.O.F. for the Lead and Opium and thus make the slip of at least twice its present practical utility? For the case of out-patient letters a rubber stamp could be used with equal effect. By the introduction of these alterations in the present system there is every probability that both O.P.O.'s and Skin clerks might be saved many attacks of writer's cramp.

Whilst on the subject of out-patient literature, we should like emphatically to protest against the flimsy character of the present "O.P.O. papers," as they are called. These delicate white slips are scarcely capable of surviving a single day's residence in the pocket or home of a Borough patient, and by the time they have been issued for a week or so and have made frequent journeys to and from the hospital, each time receiving additional creases from the patient and notes from the O.P.O., their final state is often indescribably filthy, and they are not infrequently produced in detached fragments from the various recesses of the patient's clothes. It is doubtless impossible to secure cleanliness for such documents, but a considerable advance would be made if *cards* were used instead of papers. The O.P.O. would thus be spared many a feeling of disgust and enabled moreover to survey the progress and treatment of the case as a whole instead of, as at present, having to conduct researches into what seem the scourings of a dustbin.

In another place we publish a review of a book by Miss E. C. Laurence. This lady was at Guy's in various nursing capacities from 1894 onwards, and subsequently went out to the South African War. On her return she was Matron of the Chelsea Hospital for Women. Her experiences, which have been many and various, are thus of special interest to workers at Guy's.

The Junior Guyite Club is arranging for a Dinner to be held on May 9th, at the Restaurant Frascati (Alpha Salon), at 7.30 p.m. Mr. F. F. Burghard, F.R.C.S., will be in the Chair, and Mr. J. C. Bates, Vice-Chairman. The price of the Dinner, exclusive of wine, will be 7s. 6d., and members are requested to send in their names to Mr. James A. Fraser before May 6th.

The "Nineties" Club, formerly known as the "Goblins" and the "Contemporaries" Clubs, are holding their first Annual Dinner on Wednesday, May 1st, at the Trocadero Restaurant, Shaftesbury Avenue, at 7.30 p.m. A meeting will be held at 7 p.m., punctually, for the election of the Vice-President. The cost of the dinner, exclusive of wine, is 10s. 6d. Members are specially requested to give notice of their intention to be present, and the names of any guests, to either of the Secretaries, Percy F. Henry, Esq. or Laurie McGavin, Esq., before Monday next. The President of the Club for 1912 is Dr. Charles Edwards.

Prizes and Scholarships.

Golding-Bird Gold Medal and Scholarship for Bacteriology.—W. L. Webb, Medal and Scholarship; R. D. Passey, Certificate.

Michael Harris Prize for Anatomy.—J. F. H. Stallman, Prize; A. L. Punch, A. H. Harkness, Certificate.

Wooldridge Memorial Prize for Physiology.—W. M. Lansdale, A. G. Simmins, Equal Prize; A. L. Punch, J. Stephenson, Certificate.

Junior Prizes for General Proficiency.—W. M. Lansdale, First Prize; A. L. Punch, Second Prize; A. H. Harkness, Third Prize; A. G. Simmins, Certificate.

Papers by Guy's Men.

A. E. Boycott, M.A., M.D.: The Size and Growth of The Blood in Rabbits.—*Journal of Pathology and Bacteriology*, Vol. xvi.. No. 4.

F. D. Crew, M.B., B.C.: Acute Pyelonephritis complicating Pregnancy.

H. French, M.D., F.R.C.P.: Tabes Dorsalis with One Knee Jerk Absent, and The Other Brisk.—*Proc. Royal Soc. Med.*, Vol. v., No. 5.

B. Glendining, M.S., and another: The Presence of Blood-Pigment in the Fæces of the New Born.—*Ibid.*

J. W. Mayer: Diagnostic Uses of X-rays in Dentistry.—*British Dental Journal*, 15th April, 1912.

G. W. Nicholson, M.D., B.C.: A Small Carcinoma in Association with a Transplanted Sarcoma in a Rat.—*Journal of Pathology and Bacteriology*, Vol. xvi., No. 4.

E. A. Peters, M.D.: (1) Production of Lateral Perforations of the Palate by a Tertiary Ulceration. (2) Tumour of Right Lateral Wall of the Pharynx involving the Right Arytœnoid.—*Proc. Royal Soc. Med.*, Vol. v., No. 5.

D. W. Samways, M.D., D.Sc., M.R.C.P.: On the Genesis of the Venous Pulse.—*British Medical Journal*, 13th April, 1912.

G. F. Stebbing, M.B., B.S.: A Case of Persistent Nystagmus associated with Periodical Vomiting.—*Proc. Royal Soc. Med.*, Vol. v., No. 5.

F. J. Steward, M.S., F.R.C.S.: Excision of Epithelioma of Lower End of Pharynx.—*Ibid.*

Frederick Taylor, M.D., F.R.C.P.; A Lecture on Enlargement of the Liver. Delivered at the Seamen's Hospital, Greenwich.—*Clinical Journal*, 17th April, 1912.

Is it Wise to Remove the Appendix when there is a Localised Abscess?

By R. P. ROWLANDS.

It is a common error to believe that the appendix is destroyed by a localised abscess, and therefore that it is unnecessary to remove it (*a*) either at the time of opening the abscess or (*b*) at a subsequent date. When the abscess is late, and a large one, the chance of the destruction of the appendix is greater than when it is early and small. When a calculus is discharged some presume that the power of the appendix for evil is abolished. In 1905 there was a discussion upon this subject before the Medico-Chirurgical Society, when the statistics of a large number of cases were collected from various hospitals and from the private practice of several surgeons. Sir Frederick Treves then stated that recurrence of symptoms occurred in about 17 per cent. of the cases in which the abscess was merely drained. Sir Alfred Pearce Gould gave a lower estimate of 10 per cent. It is probable that recurrence takes place in a higher proportion than was calculated by these and other authorities, for their calculations necessarily had a comparatively short time limit. This is especially important to bear in mind, as most of the subjects of appendicitis are young people with a fairly long expectation of life. If the life histories of all these patients could be followed up to the ends, it is probable that recurrence would be found in at least 20 per cent. It will be noticed that in one of the cases illustrating this paper an attack came on after nine years of complete immunity from symptoms. Judging from statistics of recurrences and from the findings at radical operations undertaken in the interval following abscess, operations for ventral hernia following long-continued drainage, and especially from the findings at operations for abscess, it is a rare event for the appendix to be completely destroyed by suppuration, and nothing short of this is sure to prevent recurrence of inflammation. Further, it is rare for *all* the appendix to lie in the abscess cavity, even when it is retro-cæcal. As a rule some part of it is free in the peritoneal cavity. For instance, it is common to find a perforation over a calculus near the base of the appendix when the tip is covered with comparatively healthy peritoneum in the general peritoneal cavity. Upon this important fact depends the risk of peritonitis at future attacks. Sloughing near the base of the appendix may lead to stricture with gradual distension of the terminal part, leading to future attacks. Case 1 is a good illustration of this.

CASE 1.

Appendicular Abscess Drained. Recurrence within Three Months. Secondary Operation.

A young lady, aged 15, daughter of a doctor, had an appendicular abscess opened on the sixth day of an attack in November, 1907. Before Christmas she was able to return home quite well. At the middle of January, 1908, she had several attacks of pain in the right iliac fossa, associated with vomiting and slight fever. It was therefore decided to remove the appendix.

Operation.—The fibres of the oblique muscles were separated. The cæcum was found but could not be delivered owing to extensive and firm adhesions. The appendix was found behind the cæcum and ascending colon. It was still inflamed. Its base was strictured, probably at the site of the previous perforation. The distal part of the appendix was greatly distended and contained muco-pus. The appendix was removed in the usual way and the abdomen closed. The patient has remained well since.

Until recent years it was not considered safe to seek the appendix in the wall of the abscess, and it was regarded a triumph if the abscess could be drained without opening the peritoneum. A great many lives have been saved by this course of treatment, and it is still the best plan to adopt *for some patients who are very ill*, and by *surgeons who are inexperienced in this special work*. The removal of the appendix must add a little to the length of the operation, but with a skilful surgeon this addition is rarely sufficient to be so detrimental as leaving a diseased appendix in the abdomen. The risk of setting up diffuse peritonitis by removing the appendix is very small if proper precautions be taken. It is essential to recognize that the risk is not in opening the peritoneum, but *in setting free and leaving infective material in the peritoneal cavity*. The removal of the appendix entails opening the peritoneal cavity in the majority of these cases, for some part of the diseased appendix usually faces this cavity. This accounts for the known danger of seeking the appendix from within the abscess, especially when all the pus has not been mopped away. Therefore it is evidently necessary to take due precautions against the possibility of *over-looking a leak into the* peritoneum, before or during the removal of the appendix. There is only one certain way of preventing this catastrophe and this is *by first deliberately opening the peritoneum internal to*

the abscess, and packing off carefully before the abscess is opened. Whenever suppuration is suspected, three rolls of dry aseptic gauze are passed in order to the left iliac region, to the right loin and to the pelvis. It is important to place the two first packs before the pelvis is invaded, because unsuspected pus is frequently found in the pelvis. The end of each roll is clipped to the towels. The parietes are also protected with fixed gauze pads, and then the abscess is opened. All the pus is mopped away, and when the cavity is dry the appendix is sought and removed, hindering adhesions being broken down if necessary. A tube containing a mere wick of gauze is placed below and outside the cæcum, the packs are removed, and the wound is partly but not tightly closed around the tube, which is not removed for four days, although the wick is changed. For the better drainage of a retro-cæcal abscess a tube is sometimes placed in a stab wound from the loin, and similarly vaginal or rectal drainage is adopted for some late pelvic abscesses, the anterior wound being closed. Occasionally an abscess, especially a very large one, is opened before the peritoneum is opened and therefore before the packs can be placed. Under these circumstances the appendix may be sought from within the abscess after taking the precaution of carefully mopping away all pus and blood; but this is neither so safe nor so easy as the method already recommended. It is not so safe because without opening the peritoneal cavity freely a pelvic abscess or early spreading peritonitis may be overlooked, or infective material may leak into the pelvis through a small opening made in the wall of the abscess during the removal of the appendix. It is not so easy because without separating adhesions and exposing the peritoneal surface of the cæcum, it is not easy either to identify and deliver the cæcum or to trace its longitudinal bands to the appendix. For these reasons, after mopping the pus away, I separate the adhesions *in front* and open the peritoneum and place packs before seeking the appendix. The disadvantages of leaving the appendix are considerable. I believe that complications are more likely when it is left, especially secondary abscesses, peritonitis, pulmonary complications and portal pyæmia. Intestinal obstruction and fæcal fistula also seem to be more common. The long-continued drainage which is often necessary favours the formation of ventral hernia. Convalescence is often prolonged by sinuses and chronic septic absorption. Moreover time, money, and opportunities are wasted by relapse, recurrence, or the need of secondary operations either for abscess, peritonitis or for the removal of the appendix in the quiescent period. Case 2 is an excellent illustration of this.

CASE 2.

Retro-cæcal Appendix. Diffuse Peritonitis twice. Several Abscesses and Empyema within Ten Months. Appendix removed during last attack of Peritonitis. Recovery.

A young man, aged 21.

History.—About February, 1911, he was operated upon for appendicitis with peritonitis, being very ill at the time, and the surgeon hoped that the appendix had sloughed off. The abdomen was drained. About April, 1911, he had another abscess over the left iliac fossa drained. He had a sinus for a long time. He also had an empyema at the left base, which was drained posteriorly. He had another abscess opened at Yarmouth in July, 1911. Since he left the Yarmouth in September, 1911 he has been very much better, has gained a good deal of weight, and has been doing his ordinary work without difficulty except that he has had a little indigestion for the last few weeks, and for five days consecutively he has vomited after dinner and has had a good deal of pain in the *epigastrium* immediately after eating. The bowels have acted fairly well. He took a dose of castor oil on the morning of November 21st, 1911. He was seized with violent pain in the lower part of the abdomen on the right side at 6 p.m. on that day. He took some brandy, but this did not relieve the pain. I saw him for the first time at 8.30 p.m. on the 22nd. His abdomen was rigid and was very tender in the right lower portion, and there was a little redness and œdema of the scars over the appendicular region. There was also tenderness in the left iliac fossa. The pulse was about 116, respiration 26, and temperature 101°.

Operation.—I opened the abdomen through the right rectus internal to the old scars. Before the abdomen was opened I could feel a mass in the loin. Directly the abdomen was opened blood-stained pus escaped. This was very offensive. Packs were passed to the flanks and pelvis in order. The pelvis contained a fair amount of pus and lymph, and there were a great many adhesions between the coils of small intestine and between them and the anterior abdominal wall. The cæcum was unusually high, and the appendix could not at first be found, but grey areas indicated its situation. After some dissection it was found behind the cæcum and colon extending vertically upwards for six inches. Its distal two-thirds were in good condition, but its basal portion had recently perforated over a calculus, and was very adherent and difficult to isolate. It was removed and invaginated in the usual way, but its mesentery could not be identified and tied owing to dense adhesions. There was a good deal of oozing of blood. The packs were withdrawn. Three drains were inserted, one of gauze extending up behind the ascending colon, and two

tubes containing wicks of gauze, one to the stump of the appendix, and one just over the brim of the pelvis. The peritoneum was partly closed with catgut, and the rest of the wound above the drains sewn with mass salmongut sutures. The operation was a difficult one owing to the amount of adhesion, and the difficulty of identifying the parts. A few days later a superficial abscess was opened through the old empyema scar. The patient made a good recovery.

The removal of the appendix at the first attack or soon afterwards would have saved this patient a great deal of trouble. I did not see him until just before the last operation. The diagnosis had been difficult, owing to the vagueness of the early abdominal symptoms. Pneumothorax and subdiaphragmatic abscess had been suggested. Conscious of these disadvantages and dangers, I decided, some three years ago, not to leave the appendix without some very good reason, such as the grave condition of the patient, and since then I have only left it in one case—a very large abscess extending from the liver to the bottom of the pelvis and opened sixteen days from the onset of the attack. It is possible that it had sloughed off. Death and complications have been fewer since I adopted this plan. It is necessary to insist that the safety of the method depends on carefully carrying out the precautions already mentioned in every case. When such precautions cannot be taken it is better not to attempt to remove the appendix at the primary operation, but to be content with drainage. A close watch must then be kept for a pelvic and subdiaphragmatic abscess.

The removal of the appendix at a subsequent date.—In a certain number of cases a secondary operation has to be undertaken, because a sinus or even a fistula refuses to heal. About a year ago a lady was sent to me for fæcal fistula nine months after a drainage operation. I found and closed a cæcal fistula, and at the same time removed a large ballooned appendix, all of which, except the strictured base, was lying free in the peritoneal cavity. I have removed similar appendices during operations for ventral hernia, and for intestinal obstruction due to peritoneal bands extending from the appendix.

In other cases there are early relapses or the symptoms never subside; an induration persists in the iliac fossa, with pain and stiffness of the right thigh. Under these circumstances the patient welcomes or even urges a radical operation.

There is some difficulty and anxiety in advising a large group of patients who seem to be quite well. Unless there is some contra-indication to an operation such as serious visceral disease, I think we ought to tell the patient the chance of recurrence, and to point out that recurrent attacks are apt to be very deceptive, and sometimes very dangerous. It is for the patient to choose between the slight known risk of a radical operation and the unknown risk of recurrence of a disease, which carries with it a high mortality.

CASE 3.

Acute Appendicitis Nine Years after Drainage of Appendicular Abscess.

Nine years ago a lady, aged 52, had a large appendicular abscess drained. The appendix was not removed. The sinus went on draining for about six months and she gradually made a good recovery and has remained very well until quite lately, when she has not looked quite well and has had a little indigestion. On April 4th, 1912, she was going abroad, and was actually dressed and ready to start, when she was seized with very severe pain in the abdomen and fainted. Very reluctantly she had to abandon her trip. She had very great pain that day and vomited a good deal. She did not sleep that night, and on the 5th the symptoms were the same only she was a little better. Her temperature did not go up to more than 100·4 and the pulse was never higher than 100, but the abdomen was full and rigid in the lower and right part. The patient looked ill and her medical attendant became anxious and asked me to see her on the 6th, at 4.30 p.m. She said she was a good deal better, but I thought this due to perforation of the appendix giving relief of tension and of pain. I strongly advised an operation and this was done just fifty-five hours after the onset of the attack.

Operation.—An incision was made internal to the old scar, which was rather weak but not herniated. The lower part of the rectus was displaced inwards and the peritoneum opened. There was no pus free in the cavity. After passing packs into the flanks and pelvis the appendix was sought. The cæcum was very adherent to the old wound, so that it was fortunate that the exploration was internal to the old one. The appendix was lying behind the cæcum. In separating it a few drachms of pus escaped on to the pack. The appendix was small, thick-walled, rigid and fibrous, possessing very little lumen. It was acutely inflamed. Its base was crushed, divided between two artery forceps, and then invaginated by a purse-string suture. Its mesentery was tied. The abdomen was closed in layers and a piece of rubber was placed in the superficial wound for temporary drainage. Catgut was used for the appendix, mesentery and muscles, and salmongut interrupted utures for the skin. A rectal saline was given immediately after the operation. The patient had an attack of diarrhœa and vomiting after the operation which gave rise to some anxiety, but the pulse and temperature were normal, and the attack soon subsided and the patient was doing very well when last heard of.

When an abscess has discharged spontaneously into the bowel, vagina, bladder, or on to the surface, it offers not much, if any, greater safeguard against recurrence, as shown by the following case, where an abscess, after six weeks, burst and drained itself through the vagina, and yet a serious attack occurred after six years of good health.

CASE 4.

Appendicitis. Pelvic Abscess.

History.—The patient had an attack of abdominal pain and sickness six years ago. She was very ill and in bed for six weeks, and towards the end of that time an abscess burst into the vagina and there was a discharge for some time. The patient gradually got well. She was very well in the interval except for dysmenorrhœa. She got married seven months ago. She has been quite regular and well until very early on the morning of the day previous to my seeing her, when she was seized with very severe pain situated in the lower part of the abdomen. This was associated with sickness. The sickness and pain continued throughout that day and the day following. The bowels were opened on the morning of the first day of the attack, and since then the patient took a little castor oil, but she brought it up again. The vomit gradually became more bilious. The abdomen got full, and her doctor could feel something on rectal examination which he thought might possibly be a retro-flexed uterus. The tenderness was more marked in the lower part of the abdomen, and especially on the right side. Micturition was painful. There was no history of blood or pus in the urine. The abdomen was rigid and distended. The rigidity and tenderness were extreme and much worse in the lower part. There was a very tender area just above the pubes on the right side. The temperature from the beginning had been elevated, but it had never been above 102°. The pulse was 130.

Operation.—The abdomen was opened through the lower part of the right rectus. There was no pus in the general peritoneal cavity. Packs were passed into the loins and the appendix was sought and found. Above it there was a blood-stained collection of foul fluid, and below it and behind the uterus there was an abscess about the size of a tangerine orange. The appendix was lying low in the pelvis with its point curled towards the middle line. It was firmly adherent everywhere, and especially to the right side of the upper part of the vagina. Its tip was gangrenous, and its base also where it had sloughed across; its mesentery was very thick. There was no kink in it, but it contained a few large stones. It was removed in the usual way, the stump being invaginated into the cæcum. The pelvis was cleaned and a large rubber tube containing a wick of gauze was placed in the lower part of the wound, which was otherwise closed, catgut being used for the peritoneum, and salmongut for the other layers. The patient made a good recovery and has remained well for two years.

Conclusions.

1. If an experienced surgeon is available and the condition of the patient is not grave, it is the best thing for the patient to have the appendix removed, with due precautions, at the time the abscess is opened.

2. When simple drainage has been adopted, a radical operation is to be recommended later, unless the patient is either very old or unfit for operation on account of serious visceral disease.

Since this paper was written I have had to operate on a boy aged 10, who had had drainage operations at various hospitals since August, 1911. He had a large abscess behind and outside the cæcum. He was very ill, and owing to extent and density of adhesions I was quite unable to find any appendix. It will probably have to be sought when the boy is better. It would have been so much better and easier to remove it at the first operation.

Pass List.

London School of Tropical Medicine.

The following was a successful candidate at an examination held at the close of the 38th Session of the School :—

L. Doudney, M.R.C.S., L.R.C.P.

Royal College of Surgeons.

Licence in Dental Surgery.

Preliminary Science Examination, March, 1912.

Part I.—Chemistry.	Part II.—Physics.
*Henry, M. G.	Stebbings, J. M.
*Lewis, E. C.	*Viljoen, W. J. R.
Smith, S. G.	Wright, J. E.

* Chemistry only.

Conjoint Board.

First Examination, March, 1912.

Part I.—Chemistry.	Part II.—Physics.
Bullpitt, C. M.	*Moore, L. W.
*Howe, G. H.	Simpson, B. C. W.
	†Wheldon, G. W.

* Passed in Part I. only. † Passed in Part II. only.

Part III.—Elementary Biology.

Bulleid, A.	Howe, G. H.
Halstead, O.	Laver, C. H.

Llarena, E. F.

Part IV.—Practical Pharmacy.

Cline, E. C.	Milton, L.
Hunôt, F. C.	Moberly, A. V.
Menagé, L. M. J.	Ryley, C. M.

Smyth, W. J. D.

Second Examination, April, 1912.

Anatomy and Physiology.

Cooke, E. J.	Price, H. P.

Empyæma.

CLINICAL LECTURE BY G. NEWTON PITT, M.D., F.R.C.P.

Gentlemen,—I propose to-day to speak to you on the question of empyæma, and, as we have had three or four interesting varieties in the wards, these cases may be used to illustrate what I want to say.

The first case is one of a double empyæma occurring in a small boy æt. 3. Double empyæmata are somewhat rare, and are almost always pneumococcal in origin. Of course, it is a very much more grave condition than a single empyæma. The report by Mr. James is as follows:—Herbert B., a boy æt. 3, had whooping cough a year ago, and was ill for six months. He was ill also a year ago for some weeks with diarrhœa and vomiting. Four weeks ago he had measles, complicated by bronchitis and broncho-pneumonia. Latterly the bowels have been regular. We have nothing more to go upon, excepting that for ten days preceding admission he had a temperature which at one time rose as high as 104°. It was usually about 102°, with oscillations of one or two degrees during the day. When admitted he was very ill, with considerable anæmia, a rapid pulse; his respirations were 66, and on examination it was found that the right chest was dull behind as high as the angle of the scapula. Above that there was indeterminate breathing, and below that level the breath sounds were absent. On the left side there was dulness up to the apex behind and to a considerable distance in front. The heart impulse was weak, but the sounds were well heard in the normal position. The skin on both sides of the chest was a little fuller than normal, but scarcely œdematous. It was evident that the boy had an acute, severe bilateral condition, associated, probably, with an effusion of fluid into each pleura. Exploration revealed pus on each side, and cultivation showed a pure pneumococcal growth. The effusion was larger on the left side, and therefore that side was opened, a part of the ninth rib being removed, and 7 or 8 ozs. of thick yellow pus, with large cheesy flakes, which are typical of a pneumococcal infection, were removed. Hot fomentations were applied. When the chest is very distended, the best way is to tap one side first, and, when the tension had been lowered, to drain it; and, if necessary, at the same time aspirate the better one. Here it was not thought necessary to aspirate the right chest at once. It will be carefully watched, and aspirated if necessary, that is, if the tension becomes very marked. Only rarely is it possible to open and evacuate both sides of the chest at the same time, successfully. The mortality in any case is high. In a series of cases I shall refer to, 6 out of 18 died. But bad cases will pull round if they do not develop pericarditis. The two main risks these patients run are pericarditis and an extensive secondary broncho-pneumonia. The child is still very ill, but he is not so ill as he was. To add to the child's troubles, in the last twenty-four hours there has been some odour from the wound so, obviously, there is some secondary infection, and that may require a bacillus coli vaccine. There is no doubt, however, that the empyæma was pneumococcal in origin.

The next case, one of Mr. Blake's cases, is that of a little girl æt 3. Her trouble has been of a much more latent nature: there is no history of any acute illness. The child had broncho-pneumonia with measles eighteen months ago. She had a cough, and was sick four days before admission. On admission there was an impaired note over the left side and it does not move as well as the right; it also seems smaller. There was a diminished entry of air, and some bronchial breathing. The temperature has not been very high: in the first week it varied between 101° and normal; occasionally it rose to 103°. So it is a less acute case than the first one. The child has been in hospital three weeks, and at the end of that time the entry of air is still very deficient on the left side, and that side is contracted. The skiagram shows the left side to be much less transparent than the right, and the shadow is markedly curved upwards.

—Skiagraph shadow.

A horizontal shadow in the chest means the presence of air there, and that you are dealing with pyopneumothorax. I have very little doubt we shall find there is an empyæma. The great majority of effusions in small children under 5 years of age are purulent; it is the exception for a serous effusion to develop, but 70 per cent. of the effusions in the adult are serous. From the insidiousness of the onset also I imagine this to be purulent. Had the child been five years older, one would have said,

looking at the temperature chart, that it was serous. There is no difference in the X-ray shadows of pus and serum.

Next day the chest was opened and the pus drained off; the child made a good recovery.

Another interesting case, also Mr. Blake's, was that of Emma D., æt. 36, whose mother died of phthisis. Last July she had a child, and was in Queen ward, looking after her baby, which was apparently well. Nine weeks ago, *i.e.*, in September, she had pneumonia of the right lung, and was treated at home. She did not get quite well, came as an out-patient, and has continued under treatment there. On November 18th she had an acute pain on the right side, associated with shivering and a sensation of being too hot. She complained of the severe pain, which kept her awake all night. She had an attack of violent coughing next day, and brought up 3 oz. of pus. When she came in, the left chest was normal; the right was dull at the base and up to the angle of the scapula. There was no tactile vocal fremitus, and very faint voice and air sounds. Above there were râles and rhonchi. This condition, following on pneumonia, suggested an empyæma. We explored in the axilla and behind, but could not find any fluid. The rise in temperature is moderate; possibly the condition is an interlobar empyæma. We find that the empyæmata which burst into the bronchi are more often localised empyæmata lying between two lobes of the lung or between the diaphragm and the lung, rather than free in the pleural cavity. The reason we did not hit the pus was that the empyæma had burst, and so the collection was very small. We shall examine by X-rays, and then explore again. During the last twenty-four hours she has been complaining that the material she brings up tastes bitter; and although her breath is not offensive, I have very little doubt that to-morrow we shall find that what she brings up will be very foul. This often happens when an empyæma bursts into the lung; it sets up necrosis, and hence, if the material becomes fœtid, it is noticed by the patient before it is obvious by the breath to anyone else.

Next day there was expectoration of very foul pus as expected; the chest was explored, and a small collection was found with some difficulty. After a week the pus was again odourless, and she made a good recovery.

As to the ætiology, one cannot too strongly insist that the great cause of empyæma is a pneumococcal infection. Formerly, when abdominal and other abscesses were allowed to remain unopened for a long time, there were a larger number of empyæmata which were not pneumococcal, but most cases now are due to that organism. It is difficult to say in what proportion, but in childhood I should place it at over 80 per cent. Perhaps some 15 per cent. are streptococcal, a few are due to B. coli infection, and about 5 per cent. are tuberculous in origin. In young adults, *i.e.*, under 30, the majority are pneumococcal. In old people, in whom empyæmata are less frequent, the proportion which are pneumococcal is smaller. So if a patient, who has recently suffered from pneumonia, gives evidence of deficient breath and voice sounds and an impaired note over the base of the lung, the probabilities are enormously in favour of there being a collection of pus in the pleura. The next most common group of cases are the various pyæmic conditions; such as thrombosis of the lateral sinus in connection with ear disease, chronic osteomyelitis, &c. Any pyæmic condition may not infrequently be followed by pleurisy, which, in many cases, tends to proceed to the accumulation of pus. With regard to the cases which start in the lung itself, there are a small proportion where infection from a tuberculous or a bronchiectatic cavity has spread up to the surface of the pleura. An empyæma would be far more common were it not for the fact that in nine cases out of ten the pleural surfaces have already become adherent. It is particularly in early phthisis when there is a small acute cavity close to the surface of the lung that an empyæma may develop. Then there are various subdiaphragmatic conditions, of which the most important is appendicitis, because it is the most common. A certain number of cases of appendicitis, particularly those in which the appendix is behind the cæcum, tend to set up a spreading infective process, which reaches the diaphragm. When there is a general peritonitis some of the fluid is almost certain to reach the under surface of the diaphragm. Therefore, subdiaphragmatic abscesses must not be overlooked as a possible cause of an empyæma. Perforating gastric and duodenal ulcers, malignant disease of the stomach and perinephric suppuration may also be causes, but they are among the less common ones. A certain number of pelvic operations, such as removal of the uterus, also inflammation around the bladder, may set up subdiaphragmatic abscess and empyæma. Some little time ago it was necessary to remove the Fallopian tubes in a woman in consequence of severe pelvic inflammation following on a confinement. A plug had been placed in the

vagina at the time of the operation, which was unfortunately overlooked and forgotten. She left the hospital, but two months later came again under observation with a foul empyæma. The cause at first was not quite obvious, but the fact that she had been operated upon two months previously led to the pelvis being examined, the removal of the plug, and this was soon followed by recovery from the empyæma. There are cases in which, not infrequently, the pus is not only foul, but may be likened to dirty water; the fluid is associated with the breaking up of the blood cells as well as with the pouring out of pus, and in a certain proportion of them there is also gas in the cavity. In such a case the gas may be due to gas-forming organisms, although sometimes it has been associated with perforation of gastric or duodenal ulcer. In these cases the reason there is gas in the pleura is probably because the organism is a gas-forming one, rather than that the gas has escaped from the alimentary tube.

Another curious class of cases are those of serous effusion which have been tapped, and in which, in the following week, there has been a foul empyæma, and sometimes even a pneumothorax as well. Were that the only indication, one might say the exploring apparatus was dirty; in most cases that is not the explanation, but more often it is due to a little cavity in the lung which has infected the pleura, when the intra-thoracic pressure has been altered by the aspiration.

In diagnosing this condition the history is a very important factor; and you should pay careful attention to a history of a recent acute abdominal condition, a pyæmic lesion, and especially a history of a pneumococcal infection. You find that the usual history is that there has been a consolidation of the lung, with an acute attack of dyspnœa, pain and pyrexia, the acute illness having lasted a week or ten days. The typical chart of pneumonia, I take to be, one in which the temperature has for six or eight days been within two degrees of 103°, and in a vigorous person has come down by crisis to normal, and next day has gone up to 102° or 103° and then remained down. The books do not insist enough upon this short second rise of temperature, which is not infrequent. Where the person is feeble the temperature will fall by lysis. It frequently happens that after four or five days, instead of the temperature remaining down, it begins to rise again, and at the end of five or six days more it is clear there is some further active process going on. Dr. Washbourne showed some years ago that empyæma may develop from a pneumococcal infection without any preceding consolidation of the lung, but this is rare. But what is common, especially in babies under the age of 2, is for an empyæma to start from the very beginning as an acute attack at the same time as the infiltration of the lung. In such a case the best rule is to wait until five or ten days after the pneumonia is over, and if the temperature is still up, begin to enquire as to the presence of an empyæma and explore.

All cases of pneumonia have a leucocytosis, except those which occur in connection with typhoid fever or those which are going to be fatal. With the crisis the leucocytosis very quickly passes off, but when an empyæma develops the leucocytosis recurs.

The physical signs of an empyæma are those of fluid in the chest. Many attempts have been made to differentiate between a serous effusion and pus, but in many cases, while you may be partly able to decide by the history of the illness, it must finally depend upon exploration. The signs of fluid depend on whether the effusion is a small or a large one. Normally the pleura is in a condition of negative tension, and therefore it is possible for a certain amount of fluid to be poured out without producing positive pressure—half a pint to a pint in an adult. During this stage the physical signs are deficient movement of the chest wall and of the diaphragm on the affected side, while the chest on that side is reduced in size and the ribs are closer together and more obliquely placed. A very important physical sign is the rise of the diaphragm on the left side at the onset of a left pleuritic effusion. On percussion there is an impaired note which goes on to dulness, and there is also imparted a sense of strong resistance to the percussing finger. You can often appreciate the difference between consolidation in the lung and the effusion of fluid more by the resistance offered to your finger than by the sound. It is important to realise what shape the level of the dulness takes: it is concave upwards, but with somewhat of an "S"-shaped curve, and not straight; it tends to rise high in the axilla and higher behind than in front. The level of the fluid does not alter with the patient's change of posture unless there is free air in the pleural cavity. When the effusion is subdiaphragmatic the curve of the dulness is convex upwards, and higher in front than behind.

The condition of Traube's area should be noted. This area lies in front on the left side behind the lower ribs; it is bounded on the left by the splenic, above by the cardiac, and to

the right by the hepatic dulness. Normally it it resonant on percussion, due to the underlying stomach, but when there is fluid in the left thorax the note over it is dull. The voice and breath sounds depend more on the condition of the lung underneath than on the amount of fluid. Where there is a small amount of fluid the breath sounds are deficient, but when the lung is much collapsed or compressed, indeterminate or even bronchial breathing may be audible. The voice sounds are diminished, but this sign is of very little importance in children, because the voice sound of a child does not transmit well, either to the stethoscope or to the hand. A large pleuritic effusion, especially in a child, may be mistaken for a solid lung unless it is remembered that with fluid there may be distant tubular breathing or in an infant it may be quite loud and audible over the area occupied by the fluid. If from any cause a chest be tightly distended, the breath sounds may be quite loud, so you may be led to think the lesion must be a solid lung. You should lay much more stress on the dulness and on the resistance to percussion than on the breath sounds. With a small effusion the breath sounds above the level of the fluid are normal.

When the amount of fluid is increased so that the lung is under positive pressure and is therefore compressed as well as collapsed, the physical signs alter: the diaphragm is depressed, the heart will be pushed over; and above the level of the fluid and there will be a skodaic resonance with coarse and sometimes with tubular breathing. In a small child bronchial breathing rather than a mere absence of breath sounds will be heard over the lower part of the chest.

As to the distinction between serum and pus, you will find that with the effusion of fluid there is a general vaso-motor paresis on the affected side, and on pinching the skin it is found to be a little fuller on the affected side. It is even more marked when the effusion is purulent. With a streptococcal infection the œdema of the chest wall is definite, but it is less marked with a pneumococcal infection. With empyæma emaciation is more rapid, the patient is more chilly, and not infrequently there is very severe diarrhœa, which is not amenable to treatment except by removal of the pus. In babies the appearance of the patient is very characteristic; there is a very anæmic, sallow look, which is almost pathognomonic. It is even more striking when the suppuration also affects the pericardium. In an infant an empyæma and a consolidated lung due to caseous pneumonia, in which a whole lobe of lung has been converted into a solid mass, may be confused together, because both may give dulness on percussion and bronchial breathing on auscultation. The point of distinction is, that as you move your stethoscope from over an area of tubular breathing to an area of vesicular breathing, if there is an empyæma you may pass from one to the other without hearing any râles. But when the lung is solid consonating râles will be heard at the margin of the patch, and there will also be bronchophony over the patch. When there is a large effusion the chest wall on the affected side will become enlarged, and the intercostal spaces widened. The dullness due to the effusion will extend higher in front; when the dulness extends above the third rib you must at once evacuate the fluid, if you have not done so before. It is unwise to allow fluid to produce dulness up to the apex, as it indicates considerable compression of the lung. In an adult there may be half to three-quarters of a pint of fluid in the chest before it produces a positive pressure. If the heart's impulse is displaced to the left side of the sternum there are probably in a man two pints of fluid present; if to the right of the sternum there are probably three or four, while if the impulse reaches as far as the right nipple it indicates five or six pints, and evacuation should not be delayed.

What happens to an empyæma if you leave it alone? Acute empyæmata cause much distress and hamper breathing; but there may be a considerable accumulation of fluid in the chest, especially in an adult, without much dyspnœa. If there is severe dyspnœa associated with the presence of a moderate amount of fluid in the chest, always look out for something else. There may be pneumonia, broncho-pneumonia, pneumothorax, extensive tuberculosis or, in an adult, malignant disease. Sometimes empyæmata develop very insidiously. It is very rare now-a-days for empyæmata to be left alone, but if they are not operated upon, the pus will, in acute cases, burrow out and escape. When it bursts externally, it nearly always perforates the front of the chest, between the third and fourth space. It may then burrow down beneath the skin, sometimes tracking down many inches to the abdomen. Very rarely it bursts on the back; some burst into the lung and into the bronchi. The pus is then expectorated and a fair proportion of such get well. Occasionally the infection may become quiescent, and pus may remain in the chest a long time without

necessarily leading to any other result than prolonged ill-health. We must strongly insist on the fact that no serous effusion becomes purulent; a purulent effusion is distinct in its origin and pathology from a serous one. I knew one case in which an effusion was allowed to remain for twenty years in the chest, and remained serous till the end. There is a possible fallacy in judging an acute effusion to be only serous, because it appears fairly clear, whereas it may be seropurulent, and the pus cells at that stage may not be numerous.

My clinical assistants have gone through the post-mortem reports of the empyæmata for the last ten years. During that time we have had 453 cases of empyæma, of which 150 (30 per cent.) were fatal. There were 21 cases of double empyæma and 18 deaths, *i.e.*, 86 per cent. 213 were pneumococcal, 27 tuberculous, in 127 there was broncho-pneumonia, 31 were due to streptococci, staphylococci or proteus, and 5 were due to B. coli communis. The deaths were respectively 31, 17, 81, 5 and 3, *i.e*, 13·5 per cent., 63 per cent., 63 per cent., 17 per cent. and 60 per cent. But nearly all the cases with broncho-pneumonia occurred in the isolation wards, and arose in the course of measles, diphtheria or whooping cough, and their inclusion gives an erroneous idea of the average mortality from empyæma. If you deduct these there are 380 cases, with a mortality of 70, or 18 per cent., and the mortality of the pneumococcal cases is only 13·5 per cent. The mortality will vary enormously according to whether your patients are small children or adults.

Complications were associated with many of the cases: 18 of them were secondary to abdominal trouble, of whom 11 died; 27 had pericarditis, of whom 25 died; 6 had meningitis, and were all fatal; 3 had arthritis, and they all recovered; and 3 did not recover from the anæsthetic. These figures fairly agree with the cases recorded by others. The highest mortality is among children under 2. At Shadwell Hospital more children were admitted with empyæma between the ages of 1 and 2 than at any other age; the mortality of those under 1 year was enormous, and that of those under 2 years was high. If a child has an empyæma between 5 and 15 years of age, it has generally been preceded by a pneumococcal pneumonia, and when treated early it should do well. The mortality was largely due to broncho-pneumonia. The cases which are put down in our list as due to broncho-pneumonia should really be labelled measles and whooping cough. In many infants when the chest is opened they do well for two or three days and then develop increasing chest mischief, and die with extensive broncho-pneumonia. The next risk is pericarditis, which is particularly common with double empyæma, and is often over-looked, so that it is only discovered post-mortem.*

Extremely profound pallor is suggestive of pericarditis. Frequently no pericardial rub is audible, and even when present it may be obscured by the presence of a pleuritic rub. When the cardiac dulness is abnormally increased and the heart sounds are very feeble, pericardial effusion may be suspected. The demarcation of the cardiac from the pulmonary or pleuritic dulness may be made by listening with a stethoscope at rest over the heart and tapping with a finger over the dull area. When the finger passes beyond the pericardium the note alters, or the stethoscope may be moved and the variation in the transmission of the voice noted when the pericardium is reached. It is possible to save a few of such cases by opening and draining the pericardium, but if you leave them alone their chance of recovery is very small. Pneumococcal meningitis is not invariably fatal. Dr. Hertz had a case recently which recovered. Lumbar puncture may show the presence of cocci in cases of delirium which formerly were not looked upon as actually due to a slight meningitis.

Treatment.—An important matter is that of anæsthetics. There is a greater risk with chloroform than with ether. It is important with a large effusion that the child should lie on its affected side. Children have died because they have been turned on to their sound side, and have in consequence ceased to breathe. About 10 per cent. of children with pneumonia develop empyæma.

The results of removing a piece of rib and draining are so satisfactory that practically, unless there is some special reason to the contrary, this method is always adopted. With some small babies you may occasionally feel that they would not stand the shock of a piece of rib being removed. In those cases, using either cocaine or freezing the skin, it is easy to put in a good-sized trocar and cannula into the mid-axilla, and run some soft tubing through. This produces but little disturbance, and allows the pus to drain off. The great object in removing a piece of rib is to clear out with the finger the large masses of lymph which form in connection with pneumo-

*The patient with double empyæma referred to in the lecture died two or three weeks later, and a latent pericarditis was also found.

coccal infections. They would soften down and be absorbed ultimately, but considerable time is saved by removing them. The general tendency is to remove the tube too soon. You should shorten the tube on the third day, and a little more each day; later, a smaller tube can be substituted. As the lung comes to the surface the effusion will be only serous, instead of purulent; then it is usual to put in a plug and do without the tube. One would rather keep the tube in too long than too short a time. Then there is the case of the child who is brought to the Hospital when it has had pus for six weeks, and its lung is not only collapsed, but compressed. There is an enormous difference in the prognosis when the lung has been subjected to considerable positive pressure, and so has had blood squeezed out of it, as well as air. The alveolar walls then adhere together, and the lung has become fibroid and does not re-expand. Children have very great reparative power, but in adults if the lung has been compressed six weeks, its recovery is a very rare event. If the lung does not come to the chest wall within four inches, after waiting a fortnight, it is a question whether it is not better to at once carry out Eastlander's operation, removing the greater part of five or six ribs, rather than wait for months, when the child is apt to drift into lardaceous disease.

Appointments.

Naval and Military.

Acting-Surgeon G. B. Cockrem has been confirmed as Surgeon with seniority from November 24th, 1911.

At the conclusion of the course for Acting-Surgeons, Royal Navy, on April 16th, Acting-Surgeon Cockrem obtained fourth place with 3,355 marks.

Captain H. O. M. Beadnell, R.A.M.C., has been appointed for duty to the Military Hospital, Chester.

Honours.

The King has granted authority to accept and wear the decorations following, conferred on the undermentioned Medical Officers, Royal Navy, by the King of Italy, in recognition of valuable services rendered by them at the time of the Earthquake in Southern Italy in 1908.

Commander of the Order of the Crown of Italy:—Fleet-Surgeon A. E. Kelsey, M.B., R.N.

Officer of the Order of the Crown of Italy:—Surgeon H. B. German, R.N.

A Case of Idioglossia in a Child aged 5.

By Dr. H. C. Mann.

The child who forms the subject of these notes exhibits an unusual and peculiar form of speech defect to which the name of "Idioglossia" was given by Dr. Hale White and Mr. Golding-Bird in a communication made by them to the Royal Medical and Chirurgical Society during the year 1891. To the same meeting Dr. Frederick Taylor contributed another case, and since then there have been occasional additions to the literature. All the cases which have been reported have this feature in common—that although the child employs a language which is almost unintelligible to strangers, yet he is readily understood by his parents and those who know him well, because the speech peculiarities which he affects for certain sounds are consistent.

The following are the notes of the case:—

A. S., a boy, aged 5 years, was sent up to hospital for backwardness at school. He is the third child in a family of four, of whom three, aged respectively 13½, 5, and 2, are now alive, the second child having died of diphtheria at the age of 9 years. The father, a gardener in one of the London parks, where the family live, is alive and well, as is also the mother. Their family history is good; there is no evidence of neuropathic heredity. During the later months of pregnancy the mother was not in good health, but the boy was born at term, and was, to all appearances, a well-nourished and well-developed baby. At the age of twelve months he had whooping-cough, and for about nine months later he suffered from "marasmus," eventually making a good recovery. He has had no other illness. The eldest boy, aged 13½, did not talk at all until he was three years of age, and then he was sent to school, so that almost all his education has not been parental, but scholastic. His general intelligence is above the average, and he attends a higher grade Council school. The baby, aged 2, is talking quite well.

At the present time the boy in question, aged 5, is of sturdy build; he is not anæmic; rosy-cheeked complexion; he is neither frightened nor shy. He does not exhibit baby talk, as he does not invent words for things, but he gives his own version of words which he has heard and which he does not remember correctly, substituting certain consonants which are easily produced for others which require more complicated movements. At the same time it should be noted that he has no malformation or defect of motor speech apparatus, his tongue, teeth, palate, and fauces being normal. His vocabulary is not limited like that of an imbecile; his sentences are not primitive, often they are of very fair length, and though the terminations

of words are often incomplete, the grammatical construction is correct, and the voice is modulated, as, for instance, in asking a question. He is backward for his age, but cleanly in habits. At home he is said to be active, bright, and noisy, talking often rapidly, without stuttering over certain consonants, rather omitting or substituting them, and yet always in a way which his mother can understand, because the words which he employs for different persons and things do not vary. He has apparently no musical ear. He does not pick up a tune or sing it afterwards, probably because he does not recognise or remember different musical sounds, without being in any way deaf to sound as a physical phenomenon. The fact that he has little or impaired memory for sounds seems to be responsible for his trouble, and unless he can hear the word again or watch somebody make the sound by movements of lips and tongue, he is unable to reproduce except imperfectly in his own peculiar language words which are often quite simple. Adopting such a method and getting the boy to watch and listen for the various consonant sounds as they are made, and then to imitate them himself, the following results are obtained:—

Labials.—P, B, and M are all made without difficulty while his attention is held, but in the course of ordinary talking the M sound is often imperfect, being replaced by a vowel sound—ahee. He can make the sound of W when shown how to do so, but very often in conversation it is represented by D.

Labio-Dentals.—F, as an initial sound, is made without difficulty; when terminal, it is often dropped, as in "puff," "fife." V is replaced by the corresponding voiced labial B.

Linguo-Dentals.—He has more trouble with these than any other consonant sounds, probably because they are more complicated in production. He never uses S or Z, or Th—voiced or voiceless. Ch is replaced by T.

Linguo-Palatals, anterior.—T, D, and L are all in use, the two former being often substituted for other letters.

Mid.—Sh is unemployed, and replaced by F when used as initial; when as a terminal, as in "fish," it is dropped. R is not used. N is occasionally employed.

Posterior.—K and Ch (hard) are in use, as is also G. Ng, the corresponding voiced nasal, is not employed. H is sometimes used.

The consonants, therefore, in common use are the explosives B, P, D, T, and K. Although he never employs S or Sh, he can hiss when shown how to do so; when talking, the sounds are replaced by F.

He has no difficulty with vowel sounds, but terminal consonants following a vowel sound are usually dropped when he is talking, with the exception of a terminal L, which is always pronounced. These main features, with certain variations, have been exhibited in several recorded cases. The language employed is not a collection of invented words, but the child's own version of sounds which he has previously heard. Whereas infants and imbeciles have a limited vocabulary and their sentences are primitive in form, with idioglossia the child has an extensive vocabulary, inflections are employed, modulation of the voice is noticed, and the arrangement of sentences conforms to rules of grammar. The difficulty of sounding terminal consonants may possibly explain the addition of a suffix to certain words which were stumbling blocks for one of Dr. Taylor's patients.

Whether the presence of idioglossia is an indication of neuropathic heredity would seem, at the present time to be an open question, but the reported occurrence of the defect in more than one member of the same family in some cases, and the family history of mental trouble which has been obtained in others, is suggestive of such a possibility.

As one of the stigmata of mental deficiency, idioglossia, or "idiophasia" as Dr. Taylor would call it, must be uncommon. I have not observed it among a hundred and twenty imbeciles of varying grades whom I have collected at Out-Patients during the past six years. My experience has been that such children learn to say words *correctly,* parrot-like, long before—in some cases years before—they know what the word means.

Treatment, if carried out conscientiously, is very successful. The child must receive individual instruction, being taught to imitate the movements necessary for the production of various consonants with which he has difficulty. It is better to teach him by words and sounds than by constructed sentences, because if the latter are employed at an early age, he tends to slip into his own dialect. Already, in less than two months, the mother of the child above mentioned has brought about considerable improvement, and he exhibits less tendency to drop final consonants from his words. Writing is not always an assistance to correct articulation, for in one of the cases recorded by Dr. Hale White and Mr. Golding-Bird, a boy aged 9 years, could write English correctly to dictation in spite of "the hopeless jargon of his spoken language." No matter how serious the defect appears to be, it will always be found possible, so long as the child's attention is held, to make him pronounce consonant sounds by imitating the method of their production, and so eventually to speak correctly.

Gazette Special Pathologist.

C. E. M. J., of Alton.—The red blood corpuscles show some diminution in their hæmoglobin contents, but otherwise appear normal. The white blood corpuscles appear definitely increased in numbers and the differential count shows 84·3 per cent. polymorphonuclear leucocytes. This blood picture does not suggest that of typical uncomplicated pernicious anæmia.

"A Lamp Bearer."*

Sir Frederick Treves, whose writings of a world beyond Harley Street and the Hospitals have charmed us, supplies an appreciative preface to this book of letters. They relate, as he says, with simplicity and candour, of many a crowded hour of glorious life and also of much patience and endurance in nursing service at home and abroad.

Miss Laurence had the good fortune to emerge from childhood with an ideal. "We receive but what we give," and she certainly gave much and in due proportion has received. At school she decided to win the Royal Red Cross which Queen Victoria instituted in 1883.

The kindly fates allowed her to travel, first to the Canary Islands, and, after a year's training at a London Children's Hospital, to pay a long visit to a brother who was Judge-President in Kimberley, South Africa.

Later she experienced many difficulties in private nursing up the Nile. To have crossed a stormy sea and to have studied many men and manners is certainly conducive to the better polishing of cot knobs and the understanding of Boro' babies.

To readers of the GAZETTE the letters dated from a General Hospital, London, will be of most interest. It is no secret that Miss Laurence's Alma Mater is Guy's, and she is proud of the fact and writes with affection and devotion of her year's training as Lady Pupil.

Are the "*grave and reverend seigniors*" who to-day smoke an after-dinner cigar in their St. Thomas's Street gardens ever entertained by escapades in the cause of a lost kitten?

Home Sisters with haunting visions of the claims of King Edward's Fund, will assent with a sigh to the statement, "I think wherever people feed in a crowd there are always some who grumble."

Varied and valuable experience was gained by Miss Laurence in the following years as Temporary and Holiday Sister in Surgical and Medical Wards, Night Superintendent of the entire hospital, and occasionally acting in various capacities in the Matron's Office.

The time in C—— Ward is specially mentioned as hard work, but very instructive. "It is chiefly for medical cases, but there is a small theatre attached and a good many abdominal operations are done."

One would like the author to see the white paint, modern table and glass drums that rejoice the heart of the present Sister Clinical.

She speaks of one day when two men were brought in from different parts of London, who had attempted to commit suicide by taking oxalic acid, one because of loss of his livelihood.

The tragedy of such lives of apparent failure is here to-day.

"My own hope is, a sun will pierce
The thickest cloud earth ever stretched."

but when?

While in this ward Miss Laurence fully realised that it is much harder to be responsible for other people's work than your own, and easier to do it than to show others. As she says: "that is where the art of the teacher comes in, to learn to trust others, and to increase the trust just in proportion as we find them worthy."

On one occasion when Miss Laurence returned, after a visit to Egypt, to take charge of a Women's Surgical Ward she found that a change in the Nurses "off duty" time had been instituted, including the three hours "off duty" every other day and the two whole days "off duty" each month for Head Nurses. As she says, this change necessitated more nurses, and the treatment being carried out by those on duty for those who were "off," and Miss Laurence rather doubts if this divided responsibility is good for either patients or nurses.

Only last month a Nursing Paper reported that Matrons in the Colonies had spoken in like manner adversely upon the working of the eight-hour day system in hospitals. Such changes are but "milestones" in institution work, and as we pass them they ought to be adapted and made to work for the general good.

One would like to know Miss Laurence's opinion as Matron in later years on a more leisured and less rushing life for nurses. To the disappointment of many the present book contains no account of her work as Superintendent of a large London Women's Hospital. In March, 1900, Miss Laurence sailed to South Africa in the "Tantallon Castle."

The history of that war has long been written. Nameless heroisms and valiant deeds, sorrows innumerable from the thousands of preventable deaths from enteric fever. Splended organisation handicapped by inefficiency. Miss Laurence was appointed by the War Office as Lady Superintendent of a field hospital with 100 beds, to be entirely given and run for three months by a private donation. She had to select five sisters to take out with her, and all fittings and stores and appliances.

The establishment of this hospital amid numberless difficulties, and of how it accommodated many, many more than the original 100 it was intended to hold, makes good reading.

All nurses will be deeply interested in the accounts of the patients with enteric, many of whom had not been washed for weeks, all with bad sores. As Miss Laurence says, "I cannot say 'bed-sores,' as they have had no beds."

Her work for two years in South Africa was varied by a voyage home as nursing sister on Lord Roberts's boat the s.s. *Canada*. A hospital with eighty-four "cots" was arranged on board. Our difficulties at home seem light when we read of "sponging a bad typhoid in an upper berth, during a fresh to moderate gale, a man wedged in the gangway to hold the basin of water; never quite sure whether the next roll would not oblige him to pitch all the water over either us or our patient."

* "A Nurse's Life in War and Peace." By E. C. Laurence, R.R.C. (Smith, Elder & Co., London, April, 1912.) 5s. net.

The interest of the voyage was saddened by the many burials at sea of those who could not survive to see their homes again.

Miss Laurence returned after sixteen days' leave for the wet season, and worked among many discomforts for the General Hospital, Natal. When we are inclined to feel that if our uniform fitted better we should perform our work more effectually, what is to be said to this—"imagine us sitting on a bench at our mess, with our lanterns hung up behind us. The first essential is a pair of knee 'gum' boots, as the grass between the tents is very long; then knickerbockers, with a very short serge skirt (some omit the skirt altogether on night duty), then a mackintosh. For headgear wool cap, or a sou'wester, according to taste."

A criticism of the book will be that for the rank and file it is not possible for a nurse's life in either peace or war to hold such splendid and varied interests. Is it necessary? Of the authoress it is related in another place that while attending to a chronic patient, absolutely helpless hand and foot, he said "Nurse, whenever I begin to feel thirsty, I look up and you are coming down the ward with a drink. I cannot think how you know *before* I ask." On the veldt or in the local infirmary that man's needs are the same.

"Unwind me from the mass
Of deeds which make up life, one deed,
Power shall fall short in or exceed!"

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

Summer Diarrhœa.

Dear Sir,—In your last issue you welcome any suggestions as to the treatment of epidemic diarrhœa and vomiting in infants. May I be allowed to call the attention of your readers to an article by Major Leonard Rogers, M.D., I.M.S., F.R.C.P., in the *British Medical Journal* of November 25th, 1911? Towards the end of last summer the author adopted at Shadwell the plan of treating these cases by the method of injecting hypertonic solutions of saline, and regulating the amount and frequency of the injection by estimations of the specific gravity of the blood. His undoubted success in the treatment of Asiatic cholera by this means should favour its further trial in epidemic diarrhœa.

Valuable suggestions may easily be overlooked in the enormous amount of medical literature published during the year, and this is my excuse in troubling you with this letter.—Yours, etc.,

Bavaria Ring, 33, Munich. E. P. POULTON.

Surgery in the time of Astley Cooper.

Dr. J. Collins Warren, a grandson of the surgeon who performed the first operation under anæsthesia as introduced by Morton of Massachussetts in 1846, has recently published a pamphlet on the methods of surgery in the early days of last century. Its subject matter is based on a series of letters from a Dr. Edward Reynolds who studied medicine in London and Paris from 1816 to 1818, which, being the fresh impressions of a zealous student, form an interesting comment on the theories and practices of our surgical and medical forefathers. Dr. Reynolds attended the practice of Guy's and St. Thomas's Hospitals, and thus his letters are full of topical references to Sir Astley Cooper and other celebrities of that date.

Medicine was then sadly empirical, and the surgeons, not without cause, held it in considerable contempt. According to one physician, for example, there was only one organ diseased—the liver; and only one medicine—calomel. Should a patient so diagnosed and treated chance to die, and should no disease of the liver be found post-mortem, then the explanation was obvious—the calomel had cured it!

In one letter Dr. Reynolds writes: "From the great popularity which Mr. Cooper gives to the science of surgery, it has become fashionable for the pupils to neglect medicine altogether, as an inferior branch. . . The result is that a great number of them seem to be ignorant of almost every part of the profession, except Mr. Cooper's general principles of surgery."

A good description is given of Astley Cooper as a lecturer, and his manner and methods seem to have impressed themselves very forcibly on Dr. Reynolds's mind, but perhaps the most interesting portions of the letters are those which deal with the actual practice of surgery as current in those days. For instance: "The fractured thigh is always placed at Guy's in the bent position on the heel, and supported in that position by a pillow being placed under the knee. Of late, however, the straight position has been strongly recommended by Boyer and Roux." Dr. Reynolds adds to this his personal opinion: "But if my own thigh were broken I would have it treated according to the plan adopted at Guy's Hospital."

The following remarks on the dressing of wounds read strangely at the present day: "No plasters or bandages are employed (in the operation for hare-lip), but it is exposed freely to the air. Upon the same principle, he (Astley Cooper) never uses any bandages or coverings to his stumps except merely sticking plaster enough to bring the lips of the wound together, and a bandage just above it, round the limb, to prevent retraction. He exposes the wound freely to the air, and most commonly applies evaporating lotions. The other surgeons at Guy's, Messrs. Lucas and For-

ster, dress their stumps in the old way. I thing Mr. Cooper's heal soonest."

Sir Astley's views on the time for operation in hare-lip are thus described: "He never performs an operation at an earlier age than two years. Formerly, he was always in the habit of doing it, and thought the age of no consequence. But he was taught to change his opinion by having lost three patients from the constitutional irritation which it occasioned, and from knowing several other fatal cases of it which happened to other surgeons."

In regard to diseases of the breast, Sir Astley Cooper made himself a specialist, and thus the follow-notes of his lectures on this subject are of special interest. "Of the hydatid or encysted tumour of the breast" (he says) "the cure depends altogether upon the number and size of the cysts. If the breast is generally affected with them, extirpation will be necessary; if the cyst is single and large, it may be cured by an opening, or by an injection. . . Mr. Cooper thinks that the true scirrhus of the breast is a constitutional disease, and considers this circumstance the reason why so many, so very many, extirpations of it fail to effect a cure. . . The symptoms (of this constitutional condition) are spasms of the stomach, rheumatic pains in the shoulders and loins, difficulty of breathing and of lying, except on the side where the disease is situated, etc."

Post-mortem these cases show: "The uterus is always diseased and found to have lost its usual appearances. There are tubercles on the liver, lungs. the uterus, the ovarium, and on the pleura, opposite the disease. There is water, too, generally, in the chest, and there is another circumstance, not commonly known—the bones, particularly the os femoris and the spine, are found to be affected by it, . . . and will often break and give way without sufficient cause. Mr. Cooper never operates now when the diseases has extended to the glands in the axilla, or when any of the above-mentioned symptoms are present, and considers it a useless attempt. Of more than one hundred cases in which he has operated, he says that he could not produce six permanent cures."

This letter contains also the following interesting jottings: "Mr. Cooper's chief principle in the treatment of compound fractures is to render them, if possible, simple ones. With this view, unless there happens to be much contusion of parts, he never applies poultices to promote suppuration, as was formerly practised, but merely puts a piece of lint over the wound, brings it together by adhesive plaster and bandages, and very often uses evaporating lotions to reduce inflammation."

"In injuries to the head he never trephines unless there are urgent symptoms, and after the operation he applies poultices in order to promote suppuration from the parts."

Six months later Dr. Reynolds is still in London, entranced by the teaching of Astley Cooper, and writing of him: "Mr. Cooper's lectures seems doubly valuable and splendid upon a second hearing." He goes on to say: "I think also that I am deriving very great advantages from the course of clinical lectures which are going on at Guy's this winter. . . They are certainly of all lectures the most useful, because the most practical. This is the second attempt which has been made to render Guy's a medical school. But it is strange, there are only twenty pupils attending them. This circumstance is owing principally (I think) to one of Cooper's errors. He holds the science of medicine in much contempt, and his very frequent observation upon it 'as a mere system of quackery,' have given an unfortunate bias to the minds of the pupils which the most active endeavours of the physicians have not been able to correct. The students have such an exalted opinion of his calomel and and oxymuriate, and believe so firmly that all diseases must yield to it, that they seem to think it a waste of time to attend to them. This is one of Mr. Cooper's most unfortunate prejudices, and extends to all who are under his influence. He knows but very little of medicine himself, and he is the cause of many others being equally ignorant."

"Mr. C. has lately cured a case of ununited fracture of the tibia of two years' standing by cutting down upon the bone and touching its extremity with caustic, using rest afterwards and bandages."

Here, also, is a treatment for secondary syphilis and liver affections in lieu of mercury, as advocated by a Dr. Scott: "About 1 dram of dilute muriatic acid and 1 dram of the dilute nitric acid are put to a gallon of water, and in this the patient bathes his feet night and morning. With regard to the proportion of the acid, it should be regulated by the taste. It should be made of about the taste of common vinegar."

Dr. Reynolds, on his return to America, found his father afflicted with cataract, and, knowing that no operation for such had been performed in America, he took it upon himself to operate, trusting in the skill and knowledge he had acquired at Guy's. His statement is graphic: "I went into my closet and offered a prayer to Deity for my success, took a glass of sherry, and went ahead to do my best."

In conclusion, we desire to thank Dr. William Cock who was kind enough to procure for us this most interesting pamphlet that it might be reviewed in the Gazette.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the Gazette *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

The Surgery:

As it might be, an it would.

Enter Policeman (*loq.*):

"All hail, good nurses, and fair Sister too,
Likewise grave doctors: we would crave your grace
And patience, for without there lies, all huddled up
And witless of his fate, one who, methinks,
Hath drunken deep of potent draughts of mead.
Yet are we loth to coop him in a cell
Awaiting justice, (a gold'un or a month);
For lo, his visage streams with ruddy gore
Despite our first-aid skill, (pray testify the same).
Wherefore we brought him at our swiftest speed
For healing to this Hospital of Guy.
We pray your sanction that we bring him in."

Nurse:

"In truth, good watchman, thou art welcome here,
Thou and thy comrade clad in azure hue;
Bring in thy charge; meanwhile I'll make relate
Of all thou sayest to the O.P.O."

(*Departs in search of same*).

Chorus, without.

Crowd:

"Gadzooks, gramercy, what a grevious hurt!"
"I' faith 'twere no light blow that broke his pate!"

Policeman:

"We crave your pardon, gentles all, make room."

Patient is brought in.

Nurse (*to* O. P. O.):

"Good sir, two stalwart guardians of the peace
Await thy leisure in the farthest room,
Attendant on a bulky ton of soil,
I crave thy pardon, son of toil, I mean,
Whose ruby-tinted life-stream flows amain
From out a wound that clamoureth for a stitch."

O. P. O.:

"My thanks, fair lady, for thy timely word;
These puking infants dull my senses so
That I am fain to leave them and to wage
Stern battle with the cuts and thrusts of chance,
Go thou, I follow."

Goes to see patient.

A waiting Patient *on Bench* (*as* O. P. O. *passes*):

"Good leech, I pray thee pause:
Here have I languished whilst the sands have run
Three times and more in yon inverted glass!
Hast thou considered how my gizzard aches
And cries for herbs full soothing known to thee?"

Nurse (*to* Waiting Patient):

"Peace, reverend father, wait but yet awhile,
Yon skilled physician hath more urgent call
To tend a cutted head than ought beside."

Waiting Patient (*indignantly*):

"Ye saints, I doubt me this is none
True hospital; nor can those striplings be
Proved leeches; forthwith I'll take my woes
To that fair shrine that dedicate hath been
To sainted Thomas, or the holy Bart."

(*exit loquaciously*).

O.P.O. (*examining patient*):

"I' faith, a horrid sight, dabbled in blood,
Full senseless too, and reeking from the fumes
Of well quaffed sack: here is no place for me."

(*Calls to Nurse*).

Sweet damozel, the cause most urgent is
That thou shouldst haste thee to the telephone
Enquiry making for that potent lord
Who rules the entry to the wards above,
Him that is dight H.S."

Nurse goes to Telephone.

Nurse (*at 'phone*):

"Make answer, pray
Art thou the abode where dwells the taker-in
Of cases surgical?"

Answering Voice:

"Saints preserve us, NO!
This is the spacious manor-house and hall
Of that Great Knight who superintendeth all!"

Nurse tries again:

Sister:

"A plague be on the heads of those who call
Themselves a Works Department! Oh! how oft
Have I commanded, begged, entreated, prayed,
That they should turn their lordly minds toward
The maze infernal of this telephone;
Yet nought is done!

(*The H.S. strolls in accidentally*)

Ah! there thou art!
Be pleased to hasten to the room beyond."

H. S. (*examining patient*):

"To take or not to take, that is the question,
Whether 'tis better now to run the risk
Of legal action and its consequence,
Or to fill up my scanty store of beds
With stuporous, vermin-covered fools?
Ah no! I have it!

(*Hastily puts stethoscope, borrowed from ward-clerk, to patient's chest.*)

Lo! I hear a rub,
A murmur, soft as blows the breeze
Of Heaven-sent zephyrs through the foliage fair,
No matter what, the case full surely is
Most medical."

(*to Nurse*).

"Haste thee again, sweet maid,
And call the aid of House-physician grave
With his attendant, Clinical yclept,
This is no case for me, lo! I depart!"

(*exit*).

Enter, after an interval, H.P. and Clinical.

H.P. (*aside, examining patient*):

"Thrice cursed is this woeful fate of mine,
That whatsoever hap may chance, I stand.

Unwilling coz for those whom none will take,
Solver of problems, arbiter of fate,
With none behind on whom to cast the weight."

(*to Clinical*):

"Prithee, young sir, dost thou not think here lies
A diagnostic riddle, most suitable in truth
For thy proved skill, and giving thee great chance
For physicking that ne'er may come again?"

The Clinical:

"Nay, by my halidom! I'll nought to do wi' it."

H.P.:

"Then must I take him in."

The Patient (*rising up suddenly*):

"Gor-blimey, lawk-a-mussy, strike me pink!
Where have I got to, what's the bloomin' row?
Is this an 'orspittle? 'Struth it is! I'm orf,
I've 'ad their hoperations and I knows
The smell of hether and of chloryform.
No more for me! Yus, thank you miss, my cap.
So long; good 'evins, what a narrer shave!"

(*Exit amidst general chorus of relief.*)

A. S.

Royal Army Medical Corps.

Entrance Examination.

An examination for not less than twenty Commissions in the R.A.M.C. will be held on the 24th July, 1912, and following days.

Applications to compete should be made to the Secretary, War Office, not later than 15th July, 1912. The presence of candidates will be required in London from the 22nd July, 1912.

A copy of the Regulations for admission to the R.A.M.C. and a form of application can be obtained on application to the Secretary, War Office.

Change of Address.

S. H. Browning, L.R.C.P. Lond., M.R.C.S. Eng., to 53, Welbeck Street, W.

A. Cheesman, Surgeon, R.N., from H.M.S. *King Arthur*, to H.M.S. *Woodlark*, China Station.

R. Felton, M.B., B.S., from Victoria, B.C., to Sooke, Vancouver Island, B.C., Canada.

C. W. Greene, M.B., M.C., F.R.C.S., from S. John's Hospital, Lewisham, to The Esplanade, Rochester.

Captain H. Watts, I.M.S., from Plague Duty, Lahore, to Wardha, Central Province.

T. B. Layton, M.S., F.R.C.S., from 61, Primrose Mansions, Battersea Park, S.W., to the Café Klinik, Spittalgasse, Vienna.

(*The Editor will be very glad to receive a postcard with notes of any change of address.*)

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Ancient Types of Man. By Arthur Keith, M.D., LL.D. (Harper's Library of Living Thought. London and New York.) Pp. 151. Ill. 29. Cloth 2s. 6d. net. Leather 3s. 6d. net.

A year ago Professor Keith, at his Hunterian lectures, was keeping spell-bound an audience that listened to him telling of pre-historic man. Here, more elementary, is what he told in book-form. To us who learn only commercial anatomy these lectures and this book are a delight and a regret. A regret that we have not the time—have not the brains, perhaps—to acquire all that one must know to speak and write like this. A delight that here is one who can make the dry bones live, can put more interest into a supra-orbital ridge than all our lecturers and demonstrators can put in a two-year course. What to us is a crumbling fragment of bone, to him is a document preserved through many an age, some "Rosetta stone" whereby he can interpret the past history of man. Read this book, you who think anatomy a finished and finite subject; you who think nothing but sordid use to be gained by its study; you who think yourself first cousin to an ape, and you who think you sprang up fully formed but 6,000 years ago—and, having read, go listen when next he speak.

The Care of Infants and Young Children. By A. Dingwall Fordyce. (E. & S. Livingstone, Edinburgh.) Price 1s. 6d. net.

An eminently useful and practical little handbook which should prove of service to many, especially in the coming summer months. It is written in a clear, straightforward style, and whilst essentially elementary in its treatment of the subject there are many valuable hints for the qualified practitioner to be gained from its perusal. The photographs of various diseased children, though likely to horrify the lay mind, are unusually clear and typical.

Gonococcal Infections. By Pollock and Harrison. (Henry Frowde & Co.) Price 5s.

This volume is a distinctly valuable addition to the existing text-books on venereal disease. It bears the stamp of competence which we have come to associate with army writers on the subject. The subject is dealt with in a concise and able manner, and, on the whole, views are put forward with an admirable fairness. The section devoted to treatment is the only one which perhaps calls for criticism; in the first place, because of its brevity, and in the second place, because we very much doubt whether general experience would place such a high value on vaccine

treatment as do the present authors. The get-up and printing of the book are all that could possibly be desired, and the volume should be in the library of every student and practitioner.

On Gastroscopy and Œsophago-Gastroscopy. By William Hill. (John Bale, Sons, & Danielsson, Ltd.) Price 3s. 6d.

This little volume is a plea for the more extensive use of the endoscope in gastric work, but as such is, we are bound to admit, far from convincing. As a demonstration of instruments, and of some of the results obtained by their use, it is excellent, although here again brevity has been given an undue importance, and we feel that a much longer list of cases with endoscopic and corrected diagnoses would have made the volume of far greater value. The illustrations of instruments are good, and we trust that the author will shortly give us his more detailed experience in their use.

Our Teeth—How built up, how destroyed, how preserved. By R. Denison Pedley and Frank Harrison.

This is a popular description of the formation of the human teeth and of the manner in which their preservation or destruction is influenced by the hygiene or lack of it of their owners. It is intended more especially for school teachers and parents of children.

As the author observes, great progress in the popular knowledge on this topic has been effected in recent years. This book is clear in its illustrations and simple in its language, and as such will be of greater use to those for whom it is primarily intended. It should, however, be in the possession of every practitioner on the register, for it is not only Medical Officers of Health and other public officials, but the bulk of practitioners, both medical and dental, who should be in the forefront of this educational campaign.

Tightening of Loose Teeth. Witkowski, trans., by Zeumann and Gabriel.

This book is by a Berlin dentist who claims to have been fifteen years perfecting his methods. After preliminary treatment of the teeth, based on the cause of the loosening, the author proceeds to treat the teeth by mechanical fixation to their stronger neighbours. By this treatment he claims to have saved many teeth for years of usefulness. The book is distinguished by that excellence of illustration and carefulness of description which are characteristics of German scientific works.

The Royal Commission on Vivisection.

Mr. Stephen Paget, the Secretary of the Research Defence Association, has written a book summarising in ten chapters the evidence given before the Commission, as well as the Inspector's Report for 1910. The volume also contains in a final chapter a brief account of the Commission's Report, as well as an important Introduction by Lord Cromer, which contains a justification of his acceptance of the Presidency of the Society, a critical survey of the Report, and an earnest appeal for the calm study of the facts disclosed. The book is intended to serve as an aid to this object. The book will be published by Mr. H. K. Lewis, and we reserve further comment until the volume is before us.

Notice.

To the Editor of GUY'S HOSPITAL GAZETTE.

DEAR SIR,—I am instructed to draw your attention to the following rule for the use of the University Library, which has recently been amended by the Senate, so as to enable the Librarians of the Colleges and Schools of the University to recommend students who desire to borrow books from the Library for home use:—

> All Graduates of the University who are not Members of Convocation, all Under-graduate Members of the University, and any other persons desirous of using the Library for purposes of Literary research, shall, subject to these rules, be admitted to the privilege of borrowing books from the Library upon producing a recommendation signed by a Member of the Senate, or by one of the Librarians of the University, its Colleges and Schools, or by two persons who must be Members of Convocation or Teachers of the University.

Yours faithfully,

REGINALD A. RYE,

Goldsmiths' Librarian, Univ. Lond.

Births.

BROWNING.—On April 11th, at 39, York Mansions, Battersea Park, the wife of S. H. Browning, M.R.C.S., L.R.C.P., of a daughter.

COWPER.—On April 3rd, at Peatling House, near Leicester, to C. M. L. Cowper, M.R.C.S, L.R.C.P., and Mrs. Cowper, a daughter.

LUCAS.—On January 30th at Edmonton, Alberta, Canada, the wife of Christopher Lucas (*née* Celia Archbold) of a son (still-born).

WATT.—On April 14th, at 59, East Dulwich Road, S.E., the wife of Mitchell Watt, M.B., of a daughter.

Marriage.

EDGAR—LOWE.—On April 6th, at S. John's Church, Hollington, by the Rev. Charles Buchanan, Niel Edgar, L.D.S. Eng., Beulah Dene, London Road, Enfield, to Violette, fourth daughter of Mr. and Mrs. T. R. Lowe, of St. Leonards-on-Sea.

Deaths.

HOLMAN.—On April 13th, at Lydfords, East Hoathley, Sussex, Henry Colgate Holman, M.R.C.S. Eng., L.S.A., in his 80th year.

LENNOX-JONES.—On March 28th, at the Nursing Home, Faversham, suddenly, Frederick Harold Lennox-Jones, only son of the late James Lennox-Jones, of 45, Granville Gardens, Shepherd's Bush, London, aged 30.

MEADOWS.—On April 9th, at Otley, Ipswich, G. F. W. Meadows, M.R.C.S., L.S.A., aged 70.

Eds.—E. G. S. & A. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 623.] MAY 11, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	181–184
Pass List	184
Physiology on the Stage	184–185
Nursing News	186
Guy's Hospital Past and Present Nurses' League	186
Guy's Hospital Nurses' Photographic Exhibition	186–187
Papers by Guy's Men	187
Appointments	187
Change of Address	187
The Complications of Otitis Media. Clinical Lecture by W. M. Mollison...	188–193
Correspondence.—The Biennial Dinner ...	194
Notices	194
A Few Therapeutic Points. An Address delivered before the Woolwich Medico-Chirurgical Society, by Herbert French ...	195–197
Dental Appeal	197
The 29th German Congress of Internal Medicine	197–200
Reviews, etc.	200

Passim.

THE attitude of the Medical Profession to the National Insurance Act is once again occupying a prominent place in the daily press, and innumerable "authentic" statements of the policy to be adopted, each more fantastic than the last, serve at any rate to fill an occasional column without doing any particular harm to anyone. On analysis, however, these statements contain some very curious propositions; some sufficiently curious to need no answer, but others with just a sufficient air of possibility to make them worthy of consideration. The details of the proposed "strike" have now been officially disclosed to the profession, and comment is therefore unnecessary, but the clause to which prominence has been given in certain newspapers, suggesting an extension of this strike to those working in the voluntary hospitals is so absurd that it is quite safe to examine it a little more closely. In the first place it is obvious that all the officers of a hospital hold their appointments subject to the control of the authorities of the hospital, and the question of what patients are or are not to be treated at that hospital is one for those authorities to decide, and will be quite unaffected by any pledge or pledges which the officers may be induced to sign. Further, the possibility of the insured persons, in the event of the doctors refusing to work the Act, being turned on to the hospitals is, on the face of it, positively Gilbertian, in the first place because of mere numerical considerations, and in the second place because the already existing criteria of income, etc., would at once place the majority of the insured beyond the pale of hospital treatment.

IF the agitation over the Insurance Act has done nothing else, however, it has at least brought the profession face to face with one most important question, the answer to which cannot fail to have far-reaching effects in the future. The attitude of the British Medical Association has made it plain that it intends to adopt in their entirety all the modern armaments of organised labour, and it remains to be seen whether the profession, now that its Association has assumed officially the policy of the Trades Unions, will continue to support it. Whether it is or is not desirable that the practice of a profession should be brought under the same system which obtains in most manual trades is a matter which the profession must decide for itself, individually and collectively, but it is at any rate desirable that the present policy of the British Medical Association should be stripped of the euphemisms which at present surround it, and should be recognised for what it is, namely, Trades Unionism of the most advanced, and syndicalistic type.

IN the drama now being played by the British Medical Association the Insurance Act, while still in the title rôle, has but a very small part, and the suggested strike is a strike, not against the Insurance Act, but against the state of

things which preceded the Act; not against a proposed change in the existing relations with patients, but against those existing relations themselves. Here, again, we are not for the moment concerned with the question of whether this is a good or a bad policy; that is a matter of purely practical politics for personal decision, but what we would point out is that it is an attempt to destroy a system which the profession itself built up, which has nothing to do with the Insurance Act, and against which, indeed, a good many of the provisions of the Act were specifically directed. Further, the British Medical Association, in persuance of its Trades Union policy, has instituted a system of "picketing" under the guise of "professional and social ostracism" for those who do not see eye to eye with it in its policy, of a kind which would call forth indignant protest in the case of an organisation of manual labourers. Here, also, the merits or demerits of such a system are not under discussion, merely we would have things called by their right names in order that the profession may have a proper conception of the policy to which it is being committed.

IT might at first sight appear unnecessary to point out what the present attitude of the British Medical Association means in terms of Trades Unionism, but the amount of self-deception both within and without the profession on this matter is so great as to call for such an explanation. Thus the *Times*, for example, loudly approves of the action of the British Medical Association, but has, we do not doubt, ready for instant use a leader deploring the increasing power of the Trades Unions, while the very people who only a short time ago held up their hands in pious horror at the iniquities of the coal strike, are now patting the British Medical Association on the back and urging it to put a yet further spoke in the wheel of democratic legislation. All this is, however, beside the point, and what we would urge in this place is that the profession should make itself fully acquainted with the principles underlying the action of the British Medical Association. Then, when the time comes, as come it must, for the official decision of the profession between the new Trades Unionism, and the old policy of a rigid professional etiquette and individual initiative, medical men will at least be prepared to vote one way or another with their eyes open.

IN the issue of the *Hospital* for April 20th, appears a letter from Dr. F. J. Waldo, the Coroner for the City of London and Southwark, which will be read with great interest by all holding appointments at either hospitals or other charitable institutions. The law on the question of fees for evidence at inquests and for making post-mortem examinations under a coroner's order, is at present very unfair to hospital workers and calls urgently for amendment. The Departmental Committee which some years ago enquired into Coroner's law, made in their report the following remarks on this question:—"We fail to see why a man who gives his services out of charity should be penalised for so doing by being required to perform a public duty, wholly outside the objects of the charity, without receiving the fee paid to other persons performing the same public duty," and it seems a great pity that this report has not been acted on. The anomaly by which, if a patient draws one breath inside the doors of a hospital, the medical man who makes the post-mortem is deprived of his fee, is as unjust as it is ridiculous, and it is high time that steps were taken to secure an alteration in the law on this matter. We feel sure that all institutional workers will agree with Dr. Waldo in urging the profession to do all in its power to induce the Government to draft a Bill to amend the present coroner's law in this and in several other respects.

THE difficulty which is often experienced of finding an anæsthetist in Take-in week is one that is very well known to all House Officers, and we feel that there is a great demand for the appointment of a House Anæsthetist. By this we mean an officer of the status of the present House Officers, who should be resident in the College, and always available for the administration of anæsthetics for the Take-in firm, or for other firms when not so occupied. That this appointment would be a popular one we

feel sure, and the men holding it would obtain a very valuable experience in the administration of anæsthetics. It is, of course, a fact that there are already House anæsthetists, but they have other duties to perform, and what is wanted is rather a man who shall devote his whole time, or nearly his whole time, to the administration of anæsthetics. If this appointment were a short one it would afford newly qualified men a good opportunity of becoming familiar with the administration of anæsthetics, and would be at the same time of the greatest assistance to the other House Officers.

The sleep, both of patients in the Medical wards and of residents in the College, was disturbed one night recently by an alarm of fire. The out-break was, fortunately, a small one, and easily got under control, but from its situation immediately under the Medical Wards, in the Biology department, was sufficient at one time to give rise to some alarm. The night Sister and the night nurses are to be congratulated on the promptitude with which measures were taken to avoid any possibility of danger, and the fact that both Mary and Esther were cleared of patients within a very few moments is very satisfactory. Fire in a hospital has such dreadful possibilities that the promptest measures are necessary when an out-break occurs, and although as events proved, the removal of the patients from the female Medical wards was not essential, yet it is far better, in such a case, to be too active than not active enough.

In our Correspondence Columns will be found a letter from Dr. Fawcett, calling attention once more to the Biennial Dinner, which is to be held at the Connaught Rooms, on June 28th. Anyone who has once attended one of these functions will need no urging to attend another, but for the benefit of those who have not as yet been present at one, we would point out that it affords a unique opportunity for renewing and reviving old friendships. The same arrangements as to seating, speeches, etc., as in 1910 will hold good, but the essentially Guy's nature of the dinner will be emphasised by the exclusion of guests other than old Guy's men. The accommodation for old Guy's men, however, is unlimited, and it is hoped that the numbers present in 1910 will be exceeded.

At the Annual General Meeting of the Guy's Hospital Cricket Club, Sir Alfred Fripp resigned from the presidency of the club, and Mr. C. H. Fagge was elected President for the coming season. The following officers were also elected: 1st XI. *Captain* G. W. M. Andrew, *Secretary* A. H. Harkness; 2nd XI. *Captain* G. Dinan, *Vice-Captain* H. N. Purdon. *Committee*: Messrs. F. C. Hunôt, R. L. Montgomery, A. C. Hancock, A. F. Rook, and A. B. Bond. The prospects for the coming season are fair, and will undoubtedly be quite good, if only a little more keenness is shown. Of late years very few men have turned out, and the officers have sometimes been hard put to it to place a team in the field. For the coming season a good fixture list has been arranged for three teams, and fixture cards will be out very shortly. The nets are in use daily at Honor Oak Park, and men are urged to turn out as often and as regularly as possible. The Captain and Secretary, or any of the Committee will be only too pleased to supply any further information about the Club.

We are asked to call attention to the slackness of the men in the matter of attending the many meetings of Committees, or for the election of Committees, which take place in the Hospital. Thus, at a recent meeting of the Students' Club Committee at which six members of the Staff and five student representatives should have been present, five of the Staff and none of the student representatives turned up. This is only another instance of the utter lack of interest in anything outside the strict work of the Hospital which has recently been more and more obvious. This slackness shows not only an absence of public spirit but also the present tendency to fall early into that groove from which return is so very difficult. It cannot be too strongly urged that the cultivation of all-round interests is even more important in Medicine than in any other profession, while the plea of excessive work is one which condemns itself.

We publish elsewhere in our columns a further list of subscriptions promised or given to the fund to endow Dental Chairs in the new Conservation Room. A great deal more money is still required, and it is hoped that old students of the Guy's Dental School will come forward with yet further subscriptions in order that the full number of chairs may be obtained. Donations to this fund should be sent to the Treasurer, and it is hoped that this appeal will meet with an even wider response than it has done already.

Pass List.

Society of Apothecaries.

The following has passed in the subjects indicated :—

Surgery.—L. K. Edmeades (Secs. I. and II.)

The Diploma of the Society has been granted to the following, entitling him to practise Medicine, Surgery and Midwifery:—

L. K. Edmeades.

Final Conjoint Examination.

April, 1912.

Medicine, Surgery and Midwifery.

*T. I. Bennett.

Medicine and Surgery.

*A. H. Birks.	*R. S. Kennedy.
*L. P. Harris.	*H. Webb.

Medicine and Midwifery.

*C. Aldis.	A. S. Shearwood.
K. B. Clarke.	L. B. Stringer.

Surgery and Midwifery.

V. A. Luna.	*R. D. Passey.

Medicine only.

E. W. Blake.	*F. C. Newman.
*C. A. R. Gatley.	*M. Pern.
J. M. Joly.	C. M. Ryley.
W. Matthews.	W. J. D. Smyth.
*L. Milton.	M. C. Thavara.

Surgery only.

*T. P. Cole.	*R. G. Oram.
*C. F. Constant.	P. E. H. Patey.
*D. A. Davies.	T. E. Roberts.
*W. S. Lacey.	*H. F. Stephens.
L. M. J. Menagé,	*W. P. Vicary.

Midwifery only.

S. S. Crosse.	S. Keith.
A. C. S. D'Arifat.	H. V. Leigh.
*W. E. S. Digby.	M. Scott.
G. D. Genge-Andrews.	H. V. Soothill.
*W. S. George.	F. Tooth.
H. J. Hoby.	S. Wickenden.

O. R. L. Wilson.

* Denotes completion of Examination.

Physiology on the Stage.

How far the stage can possibly be adapted to the teaching of physiology may seem a remarkable question, but it was, nevertheless, pretty strongly suggested to me by a visit to the King's Hall Theatre on April 30th, to witness a play—"A Modern Crusader"—produced, apparently, under the auspices of the National Food Reform Association. The play purported to deal with a phase of Public Health. I must own that I am in great doubt whether such a production can ever with profit be made public, and I am very certain that it was anything but healthy.

Something after the manner of Lydgate, in "Middlemarch," a young Dr. Lawson begins practice in a small provincial town in a hot fit of enthusiasm for vegetarianism, and with what would appear a more worthy interest in good housing and hygienic instruction for the poor.

In the first scene we are treated to a long argument on the merits and demerits of vegetarianism between the doctor and the squire. We hope we are not lacking in courtesy to the writer or to the National Food Reform Association when we say that the scene is really a little tedious. The second scene takes place in the butcher's shop in the town, the stronghold, of course, of the antivegetarians, and it is enlivened by a violent interview between the doctor and the butcher, as heads of the opposing parties, and by a very sentimental love-scene between Dr. Lawson and Josephine, the butcher's daughter. In the end, Josephine is apparently struck by lightning, and heroically rescued by Dr. Lawson, with a good deal more noise and melodrama than we should have expected a medical man to show. A play so obviously intended to teach should not lay itself open to the charge of tickling the ears of the groundlings.

The third scene is laid in the rector's garden, and is to me something of a puzzle. But whatever the exact meaning of the scene, it is certainly by no means a good advertisement for the objects which it is presumably intended to forward; for Dr. Lawson confesses that he is ruined, and must immediately leave the town, owing to the inhabitants' preference for good red meat over such "greengrocers' stuff," as he has tried to introduce; and the rector's wife, a chronic invalid, who has, we suppose, been following the doctor's treatment for some time, herself pays her last debt to nature at the very end of the scene. However, she leaves her fortune to the young doctor for the furtherance of the cause; the doctor is received into the arms of his Josephine, and all ends in a spirit of chastened happiness.

Now, what is the use of it all? What are we to learn from all this wild talk about our stomachs, this morbidly passionate insistence on the claims of our insides? Who in that audience has any clearer idea

now than he or she had before of how to think on the subject of vegetarianism? I come back to my first question: Is it not a strange notion that a play should ever be employed to teach physiology?

The criticism is, that the whole function of the drama has here been mistaken and confused. More than three centuries ago the purpose of the drama was defined once and for all by the greatest of dramatists—"to hold, as 'twere, the mirror up to nature; to show virtue her own feature, scorn her own image, and the very age and body of the time his form and pressure." It has never been better explained. The drama is a form of art; and art is never directly didactic, never forces the point at issue unnaturally forward out of the tissue of circumstances in which it works, never directly points a moral. The subject is subtle, delicate, and difficult, but it is of great importance.

I would not be understood to say that the only purpose of art is to tickle the æsthetic palate with a superficial picture of life and manners: there are finer uses in the background. But the first business of art is certainly to be artistic; and in so far as it fails of being artistic, it fails also of any ulterior effect. It teaches, but only as nature teaches; it has a moral, which is potent just in proportion as it is unobtrusive and intrinsic. To wrest it from its proper end, to turn the drama into a pseudo-scientific debate is, by changing its very being, to render it repugnant to those whom it is intended to benefit, empty, worthless, and ineffective.

Also, drama is that form of art which is, perhaps, the most essentially popular of all. It was originally intended to be, and to some of us it shows signs of becoming once more, a most excellent medium for the dissemination, in the veiled and attractive manner I have indicated, of instruction and delight. But it is not hard to see how the necessity of popularity somewhat restricts the choice of subject. Thus, the intricacy of individual character, the interplay of influence, the unfolding of a human plot, will always remain subjects proper to the stage, while all social and political problems will necessarily be of a rather more questionable shape, and only become suitable to the stage in proportion as they are popular and easily intelligible to the public.

To take a modern example, J. M. Synge is a dramatist of the first class, Mr. Bernard Shaw of the second. The former had no theory except of his art, no "ideas," no "problems." He did not himself wish to change anything or to reform anything. As Mr. Yeats has said, he saw the subject matter of his art "with wise, clear-seeing, unreflecting eyes—and he preserved the innocence of good art in an age of reasons and purposes." On the other hand, Mr. Bernard Shaw is himself bathed in the froth of society, attacks established conventions, and forces his audience to think for themselves. This is well enough; and when he writes of cheap romanticism, the absurdities of melodrama, and the exploitation of the poor, he is within the limits of his art. But Mr. Shaw is treading on the border line, and must see to it that he keeps his problems within the grasp of the public mind. It remains to be seen which of the two men is the greater and more permanent dramatist.

The application of these remarks to the play under discussion is obvious. The subject appears rather important, and I must insist, in spite of an apparent lack of courtesy, that the inculcation of vegetarianism is not a proper subject for the stage, nor are the principles of dietetics to be mastered in an afternoon's fantasy. I say nothing here either for or against the principles of vegetarianism for the same reason that I protest against its treatment in a play. It is not the place for it. Physiology is a scientific subject, and must be treated in the light of science, and with the coolness and stability of scientific method, not in the momentary excitement of a theatrical representation.

Time was when men took no thought for science in their daily life, walked in the light of unsystematized nature, took her gifts, and enjoyed her graces, troubling not at all about the intricate processes of physiology within them. Oh, of course, they were the dark ages of ignorance and superstition; nevertheless, they bred mighty races and did mighty deeds. Those days will never return. We do not wish them to return. But since we have put our hand to the plough of science and progress, it would ill become us to look back and waste our strength in half measures. It is not less science we want, but more. It is not less education we want, but more. But we want effective education, and we want scientific science. When the hungry sheep look up, how is it with us if we feed them with special pleading and arguments founded upon insufficient knowledge, instead of the calmness and potency of science?

I fear these criticisms on the play are only too reminiscent of Dr. Johnson's famous judgment on the Oxford leg of mutton, that it was "as bad as bad could be, ill fed, ill killed, ill kept, and ill dressed." I will try to find a more favourable note on which to close. In the last scene there were a few words said on the subject of hygiene and housing, a subject which might, perhaps, have been expanded with advantage. For these subjects are, indeed, slightly more popular and suitable for public discussion than the fashion of vegetarianism. The same subjects were treated at greater length in a pamphlet which was handed round at the performance.

R.

Royal College of Physicians.

The following has been admitted a Member of the College:—G. H. Hunt, M.A., M.B., B.Ch.

Nursing News.

MATRON'S OFFICE.

On March 23rd, Sister Ida, Miss Cornwell, Hospital Housekeeper, left the Hospital to be married, and Miss C. M. Hancock, Sister of Patience Ward, was appointed Hospital Housekeeper. Miss A. M. Coulton, who completed her training in April, 1911, and has since been Sister at the Children's Hospital, Liverpool, was appointed Probationary Sister on April 9th, and took up her duties in Patience Ward, *pro tem.*

On May 8th, Sister Unity, Miss Kinsman, Medical Night Sister, was appointed Sister-in-Charge of Patience Ward, and Miss K. E. New, who completed her training in September, 1911, was appointed Probationary Medical Night Sister.

On May 8th, Miss Alice Park left the Hospital, and Miss A. M. Coulton succeeded her as Surgical Night Sister.

On March 27th, Nurse Knight left the Hospital, on completion of her three years' training, to take up her duties on the Private Nursing Staff, and Probationer K. Blenkarn succeeded her as Head Nurse in Lazarus Ward.

On April 13th, Nurse J. Allen was appointed Staff Nurse in Victoria Ward, and Probationer Feeney, Head Nurse in the Eye Wards.

On April 13th, Nurse Calvert and Nurse Iles left the Hospital on completion of their three years' training. Probationer O'Rorke succeeded Nurse Calvert as Head Nurse in Luke Ward, and Nurse Hewitt was transferred to John Ward from Victoria, Nurse Mullan succeeding her as Staff Nurse in Victoria Ward.

On April 19th, Nurse Cronin left the Hospital on completion of her three years' training, and Probationer Millar succeeded her as Head Nurse in Bright Ward.

On April 29th, Nurse Beirne was appointed Head Nurse in Dorcas Ward.

On May 3rd, Nurse Moriarty left the Hospital, on completion of her year as Staff Nurse, to take up her appointment as Sister at the County Hospital, Newport.

On May 7th, Nurse Iles returned as Staff Nurse in the Casualty Department.

Guy's Hospital Past & Present Nurses' League.

THE popularity of the Annual Dinner of the Guy's Hospital Nurses' League was manifest on April 26th, when 120 members took their seats at 7 p.m. in the dining hall of the Nurses' Home. Married members, hospital matrons, private and district nurses, etc., came from many different parts of England and Wales for the pleasure of once more meeting the old friends of their "alma mater." Some, indeed, who could not spare time to stay in town, returned to distant counties by midnight trains.

The business of the evening was transacted at the General Meeting at 8 p.m., when the numbers were augmented by many members who could not arrive in time for dinner. In the unavoidable absence, through illness, of Miss M. N. Oxford (Sister Philip), the chair was taken by Miss Harradine, Matron of the Royal South Hants Hospital, Southampton. The Hon. Secretary, Miss L. V. Haughton, gave a very satisfactory report of the working of the different sections for the year, and the result of the ballot for the election of representatives of each section on the Council was announced. Votes of thanks were passed to many friends, and on the conclusion of the business the company gave themselves up to the pleasure of greetings and reminiscences of the "good old days," and to the enjoyment of music and songs provided by the Nurses in the Hospital.

Among those present were:—Miss Victoria Jones and Miss Swift (former Matrons), Miss Strick, Miss Oxley (Norwich), Miss Atkey (Newport), Miss Jolley (Liverpool), Miss Bryan (Northampton), Mrs. Forsyth (Sister Kate Neale), Mrs. W. G. Stewart (Sister Cornelius), Mrs. Densham (Sister Addison), Miss Aitken (Watford), Miss Davidson (Gravesend), Mrs. Philip Turner, Mrs. Higgens, Miss Minnie Leng, and many others.

Guy's Hospital Nurses' Photographic Exhibition.

THE Eighth Annual Exhibition of the Nurses' Photographic Society was opened in the Nurses' Home on April 26th, many of the Hon. Members of the Nurses' League accepting the invitation to view the prints—Mrs. Cosmo Bonsor, the President, The Countess of Bective, Lady Perry, Miss E. Bonsor, Mrs. Lane, Mrs. Shaw, Mrs. Hale White, Mrs. Rowlands, and Mrs. Wells.

The exhibits, numbering some 250 prints, were arranged on screens covered with brown canvas in the

Head Nurses' Sitting Room, and were again judged by Mr. F. T. Hollyer, who made the following awards:—

Class A (for those who had previously won an award).—1st Prize, "Sunlight," Nurse Du Boulay. 2nd Prize, "A Calm Day," Nurse A. M. Phillips. 3rd Prize, "Sunset," Miss Atkey.

Class B (for those who had never won an award).—1st Prize, "Sunshine and Cloud," Sister Addison. 2nd Prize, "Sunlight and Shadow," Miss Oldendorff. 3rd Prize, "Oban Bay," Nurse Woulfe Brenan.

Class C (not the entire work of exhibitor).—1st Prize, "Evensong," Nurse Du Boulay. 2nd Prize, "Portrait of a Child," Mrs. Mollison. 3rd Prize, "Castle of Chillon," Nurse E. F. Edmonds.

Special Prize for Best Picture in the Exhibition.—Sister Addison, "Sunshine and Cloud."

Special Prize for Best Picture by Present Member.—Nurse Woulfe Brenan, "Cloud Effects."

Before giving a short criticism of the prints on the walls, Mr. Hollyer said he was very pleased to see that the Exhibition was of a much higher standard this year, many of the photographs showing that great care and trouble had been taken in preparing them. He specially emphasised that portraiture should be encouraged, and that the prints should be enlarged.

Among the exhibits were some very interesting snapshots of Indian life sent by Sister Kate Webb, Sister Alice Wilkinson, and some of Kandy sent by Nurse Lüders.

Miss Smith exhibited many beautiful prints and enlargements, but marked them "not for competition."

Papers by Guy's Men.

A. P. Beddard, M.A., M.D., F.R.C.P.: A Lecture on Acidosis.—*Clinical Journal*, 8th May, 1912.

Captain H. C. Keates, M.D., I.M.S.: A Case of Suppurating Ovarian Dermoid Cyst.—*Indian Medical Gazette*, April, 1912.

W. Arbuthnot Lane, M.S., F.R.C.S.: A Clinical Lecture on Chronic Intestinal Stasis.—*British Medical Journal*, 4th May, 1912.

G. N. Meachen, M.D., M.R.C.P.: The Treatment of the Various Types and Stages of Eczema.—*The Practitioner*, May, 1912.

E. H. B. Milsom, M.D.: Some Notes upon Vaccines and Vaccine Therapy.—*New Zealand Medical Journal*, March, 1912.

Owen Richards, M.Ch., F.R.C.S., and another: The Treatment of Bilharziasis by Salvarsan.—*The Lancet*, 27th April, 1912.

V. St. John, M.R.C.S., L.R.C.P.: Appendicular Abscess in the Pouch of Douglas.—*The Practitioner*, May, 1912.

Frederick Taylor, M.D., F.R.C.P.: The Treatment of Opium Poisoning by Faradic Current.—*The Lancet*, 27th April, 1912.

Appointments.

Naval and Military.

Staff-Surgeon R. Clark, R.N., to the *Andromeda*.

Staff-Surgeon A. W. Iredell, R.N., to the *Prince of Wales*, additional for service with Rear Admiral in Home Fleets at Portsmouth.

Surgeon C. G. Sprague, R.N., to the *Dwarf*, on recommissioning.

The services of Lieut.-Colonel E. C. Hare, I.M.S., are placed at the disposal of the Government of Behar and Orissa from 1st April.

Captain H. Watts, I.M.S., to be a Civil Surgeon at Wardha.

Lieut. M. A. Rahman, I.M.S., has been selected for appointment as Specialist in Otology and Laryngology.

Civil.

Herbert French, M.D., F.R.C.P., to be Honorary Consulting Physician to the Surrey Dispensary, Great Dover Street, S.E., vice the late Sir Samuel Wilks, Bart., M.D.

H. J. Roberts, M.D., Durham, F.R.C.S. Edinburgh, to be certifying Surgeon, under the Factory and Workshop Act, for the Penygroes District, County of Carnarvonshire.

T. G. Stevens, M.D., F.R.C.S., to be Physician to In-Patients, Queen Charlotte's Lying-in-Hospital.

J. R. Perdreau, M.B., B.S., to be Senior Assistant Medical Officer and Pathologist to the County Asylum, Herrison, Dorchester.

Change of Address.

H. G. Barham Blackman, from Norwich and Norfolk Hospital to Walcote, Unthank Road, Norwich.

V. Dymott, L.D.S., from 24, Caterham Road, Lewisham, to 1, New Road, Green Street Green, near Orpington, Kent.

H. Gordon Spain, L.D.S., from R.N. Barracks, Chatham, to 1, Burlington Gardens, London, W.

Surgeon C. G. Sprague, R.N., from 60, Addison Gardens, W., to H.M.S. *Dwarf*, affiliated to the Atlantic Fleet.

F. R. Wallis, L.D.S., to 22, Museum Street, Ipswich.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

The Complications of Otitis Media.

CLINICAL LECTURE BY W. M. MOLLISON.

GENTLEMEN,—In a previous lecture I discussed acute inflammation of the middle ear. To-day I wish to pass to a consideration of some of the complications which may result from inflammation in the middle ear.

A knowledge of the anatomy of the temporal bone is of the greatest value in considering these complications. You will remember that the Fallopian aqueduct carrying the facial nerve in its angular passage through the temporal bone lies for a part of its course along the upper part of the inner wall of the tympanum, and turns downwards immediately behind the oval window. This canal sometimes exhibits deficiencies in its bony wall; when that is the case the nerve is separated only by some fibrous tissue and mucous membrane from the tympanic cavity. In cases where this condition obtains, should exudation take place into the tympanum as in acute otitis media, the pressure is soon raised in this small space, and the nerve is subjected to mechanical pressure: the result is a *facial paralysis*. This complication is a transitory one, the nerve recovering completely when pressure is relieved. The following cases are good examples:—

A woman of 35 attended the Out-Patient Department, suffering from earache in the left ear and a left facial paralysis of four days' standing. On examination of the ear it was found that the membrane was bulging; it was incised and exudate escaped. In a week's time the paralysis had entirely disappeared.

Recently a girl of 5 years of age attended the Out-Patient Department for pain in the right ear. She had facial paralysis, and had had earache three days previously; the membrane had already ruptured and pus was escaping. In a few days the paralysis was less marked, and in a week it had practically gone. This complication—facial paralysis due to acute otitis media—is from anatomical reasons unusual.

The more important complications are due to spread of the inflammatory disease beyond the bounds of the middle ear. In the majority of cases of suppurative otitis media the inflammation involves mucous membrane only, but in some the underlying bone is attacked, and it is in this group of cases that complications occur. As we saw, the *antrum* is almost always involved in middle ear suppuration. This space is deeply placed in the mastoid process and separated from the tympanic cavity by a comparatively small opening—the aditus—an opening at no time large, blocked as it is by the articulating process of the incus, but made very minute by swelling of the mucous membrane in cases of inflammation. In the antrum, then, there may be inflammatory exudation or pus completely shut in, unable to drain through the aditus—a condition ideal for spread of inflammation in various directions from it.

Consider the position of the antrum, it lies in the depth of the mastoid process, perhaps surrounded externally and posteriorly by the mastoid cells which, indeed, may communicate directly with it; or it may lie in a densely hard mastoid process with no cells round. Its roof is the continuation of that of the attic and is called the tegmen antri; it is sometimes extremely thin as it separates the cavity of the antrum from the dura mater of the middle fossa. Behind, lying at a variable distance, is the groove lodging the lateral sinus. Deeply is the internal ear, particularly the prominence of the external semicircular canal as it lies at the lowest part of the aditus.

From the antrum as focus inflammation can and does spread in any direction and suppuration may attack:—

1. The mastoid cells leading to acute mastoiditis.
2. The dura mater leading to pachymeningitis externa or extradural abscess.
3. The lateral sinus, giving rise to a phlebitis and perhaps thrombosis.
4. Brain leading to cerebral and cerebellar abscess.
5. Internal ear leading to labyrinthitis.

It will not be possible to discuss all these complications fully here, but I will try to indicate the pathology and chief clinical manifestations illustrating each complication by cases which have come under my observation.

1. *Acute mastoiditis.* — This complication arises in the course of an acute or chronic suppurative otitis media; but if it arises in the course of the chronic case it is seldom simple, and is generally combined with some intracranial complication. Pathologically it is a condition of osteomyelitis of the mastoid process; infection spreads by the small blood vessels in the bone. Should this spread take place towards the surface of the bone a subperiosteal abscess is formed. As a rule the path of infection is so small that the surface of the

bone may look quite normal in spite of a large subperiosteal abscess. In some cases, on the other hand, there may be a hole in the bone formed by necrosis which indicates the path of infection to the periosteum.

Let us pass to a consideration of the symptoms and signs of acute mastoiditis. All of you have probably seen cases of so-called "acute mastoid," and the appearance of a typical case is familiar to you. The patient, often a child, has the auricle displaced downwards and forwards, a red swelling over the mastoid process, œdematous, tender, and often fluctuating, and pus is to be seen in the meatus coming from a perforation in the membrane. Such a case gives rise to no difficulty in diagnosis, and like any other case of acute osteomyelitis calls for operation to open the abscess in the bone—in this case the mastoid antrum. In the majority of cases of acute mastoiditis there is to be seen a swelling of the deep part of the posterior superior meatal wall, and, indeed, in some cases pus may burst through there. When this occurs symptoms due to pent up pus subside and patient becomes so well that attention can be withdrawn from the mastoid altogether (see case quoted under heading of extradural abscess).

In adults acute mastoiditis may not exhibit these striking signs, and it is sometimes by no means easy to decide whether the pain over the mastoid that occurs in a case of acute otitis media will subside under appropriate expectant treatment or is indicative of pus confined in the mastoid process demanding operative interference. The following signs are indications for operation on the mastoid process. If after free incision in the membrane and drainage of pus:—(*a*) *Pain* is still complained of behind the ear; (*b*) the *tissues over the mastoid process* are a little thicker when compared with the opposite side and the *tip of the mastoid process* is obscured, and the deep part of the *posterior superior meatal wall* is slightly bulging; (*c*) tenderness on pressure over Macewen's triangle; (*d*) the *temperature* remains one or two degrees above normal, the patient does not seem well and has not a good appetite. All these taken together indicate an acute mastoiditis, but it is sound treatment to operate should any one of the four signs (*a*), (*b*), (*c*) or (*d*) persist alone after the fourth week of an acute otitis. Let me emphasise here once more that should any signs of mastoiditis arise in the course of a *chronic* suppurative otitis operate at once, because in 90 per cent. some other complication is present.

The following case is a good example of acute mastoiditis occurring in the course of acute otitis media.

Emily J., æt. 48, was admitted into Lydia on October 5th, 1910. A little more than a fortnight before admission, patient had earache in the left ear; five days later otorrhœa began and has continued; for a few days before admission the earache had kept her awake; there is tenderness all round ear, especially over mastoid process, and a little thickening of the tissues over the mastoid process. She continued to have pain, and to sleep badly, and the thickening became more marked; a little œdema developed, and tenderness remained on pressure over Macewen's triangle. Her temperature (Fig. 1.) only once rose over 100, but remained steadily about 1° to 2° above normal; all the time profuse discharged continued. Finally in the fifth week of illness operation was performed (operation had been suggested before but the patient had refused); pus welled from the bone on opening it with the gouge, and the whole process was found filled with granulations and was necrotic; the disease extended back as far as the lateral sinus.

This patient made an excellent recovery, the wound healed well, as did the membrane, and three months later her hearing was so good that she was herself doubtful as to which ear was the better.

One of the chief difficulties in *diagnosis* of acute mastoiditis arises from infection of the glands lying over the lower part of the mastoid process; the infection may come from the presence of boils in the external meatus, or from the scalp through impetigo or pediculi.

This adenitis may give rise to swelling and œdema over the mastoid process, and this to such an extent as to push the whole pinna downwards and forwards in a way very suggestive of an acute mastoiditis.

The following two cases illustrate what may happen: the first is that of a small child. On the left side there was pus in the meatus and so much swelling that the membrane could not be seen; there was typical displacement of the pinna downwards and forwards by a red tender swelling over the mastoid process. The diagnosis of acute mastoiditis was made; incision over the swelling behind the ear revealed œdema of the tissues and pus; the bone was opened but was found perfectly normal; the swelling in the meatus was due to a boil, and the pus was from this boil which had burst. The child recovered perfectly. The second case was that of a

house-physician, who was the subject of a general furunculosis, for which a vaccine was being given; he developed boils in his ears, first on one side and then on the other, apparently due to irritation from the use of a stethoscope. The one side got well after incision of the boil; the other side then got very painful, preventing sleep, the temperature rose to 100°; a boil in the meatus was incised, the membrane was inflamed and also incised but no pus escaped; a swelling then appeared over the upper part of the mastoid process, and the pinna was pushed *down* and *forwards*, and the swelling was tender and œdematous. The diagnosis of boils was still adhered to, and under treatment by fomentations and instillation of glycerin and carbolic drops into the meatus the swelling all eventually disappeared.

The following case is another good example of the difficulty that may arise in the differential diagnosis between acute mastoiditis and adenitis.

Gladys S., æt. 14, was admitted for pain in left ear and swelling behind the ear, on October 21st, 1911. She had had a sore throat one month before admission, earache began a week after this, and she has had an otorrhœa for the last fourteen days. Two days ago swelling was noticed behind the ear.

There was a foul profuse discharge from both ears, and both membranes were perforated. Over the left mastoid was a reddened swelling, very tender on palpation. There was slight tenderness over the right mastoid also. There was no displacement of the pinna. The patient was pale, but did not look very ill; she had not been

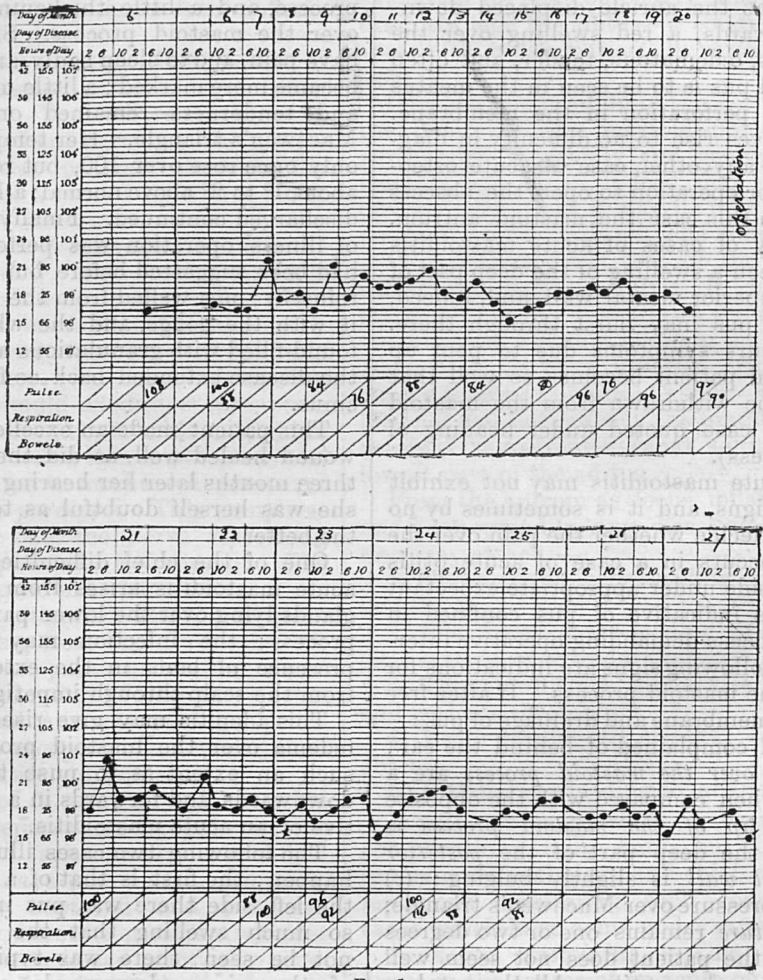


FIG. 1.

sick. The hair was very dirty with pediculi and nits. Temperature, 100°; pulse between 132 and 116.

On the general condition of the child, and the fact that the swelling was more over the lower part of the mastoid process, the diagnosis of adenitis was made, and hot fomentations applied and the hair treated appropriately. After 24 hours the temperature was 99·6°, and the mastoid still extremely tender, but this tenderness was more over the lower part of the mastoid than the upper, and by carefully increasing pressure over Macewen's triangle the œdema could be pushed away and the bone pressed on quite hard without very much pain. Expectant treatment was persevered in, and the patient got well. The swelling was glandular due without doubt to the pediculi. The otorrhœa got less with syringing, and finally ceased.

We pass now to the further complications: affections of the dura mater, brain, blood sinuses, and internal ear. These are known as "intracranial" complications. When the relation of both the middle and posterior fossæ of the skull to the antrum and mastoid process is considered, it is a matter of little surprise that the dura mater lining the cranial fossæ becomes involved in inflammation; the dura mater of the middle fossa is only separated from the cavity of the antrum by the roof of that space, a plate of bone often extremely thin; the dura mater of the posterior fossa lies in a very variable relation to the antrum, the most anterior part of the dura mater is that forming the lateral sinus, and the bony groove in which this sinus lies is sometimes three-quarters of an inch behind the antrum, sometimes only one-eighth of an inch behind.

2. *Pachymeningitis externa.* This term means simply inflammation of the outer surface of the dura mater; should the inflammation lead to suppuration the term *extra-dural abscess* is used. In the first place the inflammation leads to redness and roughness of the dura mater, then to granulation formation on the surface, and finally to pus formation between the dura and the bone. The extra-dural abscess may be caused by direct spread of the disease (necrosis) of the bone, or more often indirectly by infection through small vessels in the bone.

The abscess is more frequently found in the posterior fossa than middle fossa, at any rate when a complication of acute otitis media; and in a very large percentage of cases of chronic otitis media with symptoms of mastoid involvement some intracranial complication will be found to be present and that complication is most often extra-dural abscess.

Symptoms.—In a large proportion of cases of mastoiditis extra-dural abscess is present without any symptoms or signs, and, indeed, it is often a matter of great difficulty, and indeed impossibility, to diagnose the presence of extra-dural abscess.

In cases where there are all the signs of suppuration in the mastoid process operation is called for, and any intracranial complication may be expected.

In the absence of masking symptoms the following points will indicate an extra-dural abscess:—

1. Headache and earache.
2. Patient obviously ill—more ill than the presence of ear discharge can account for.
3. Tenderness over mastoid, even if this is very slight, and over the bone just behind the mastoid, a point indicative of involvement of the dura mater of the posterior fossa.
4. Temperature a little raised—say to 99·5° or 100·5°; especially is it suggestive when the temperature remains a degree or two above the normal for any length of time.
5. Vomiting and want of appetite.
6. From lumbar puncture, fluid may be under excess pressure.

The following case is a good example of an extra-dural abscess without any local signs:—

Laura L., æt. 11, admitted on September 30th, 1911. She was sent to hospital by Dr. Roberts. A week before admission temperature 105·6° (Fig. 2); this gradually came down, but she had great pain in the left ear; had had two rigors, vomiting and constipation. There was a history of chronic otorrhœa (? 10 years), which stopped three weeks ago. When she was admitted she had a temperature of 102·4°, which sank to 97·0° in twelve hours, rose next day to 102·0°, again fell, and on October 3rd it had fallen to normal. The child complained of pain in the ear and looked ill, she was dull and sleepy, and her general condition did not correspond to her normal temperature. As to the ear, there was a discharged of pus quite slight in amount, no swelling of the meatus, and only a little tenderness on pressing deeply on the mastoid over Macewen's triangle. Diagnosis of extra-dural abscess was made. Operation was performed. There was much pus in the bone and a large extra-dural abscess partly on the posterior and partly on the middle fossa. The child made an uneventful recovery except that she was very dull and suffered from headache for some few days after operation.

Should the pressure of the pus in the bone be relieved by rupture of a subperiosteal abscess, extra-dural abscess may be present without causing any symptoms, as the following case shows very well :—

Ellen C., æt. 26, was sent to the Aural Out-Patient Department on Feb. 14th, 1912, for an opinion on the right ear condition. The woman seemed absolutely well, but said she had had six weeks previously pain in the right ear and a swelling behind the ear; the ear had discharged and the swelling had disappeared. She now suffered from some headaches and otorrhœa. On examination, the right external meatus showed a swelling on the posterior wall, and an ulcerated spot into which a probe could be passed for a short distance, there was pus in the meatus; she had some tenderness over the mastoid process, but no swelling. The diagnosis of a previous mastoiditis which had burst through the meatal wall was made, and the advice given that the patient should have the mastoid process operated upon. She was admitted one month later and the bone opened; immediately on making a cut with the gouge pus welled out, and it was a matter of great interest to find an extensive extradural abscess over the lateral sinus. This interest was enhanced when one learned that the patient had continued to do her usual work up till the day of admission without any symptoms whatever. She made a good recovery in spite of the fact that she developed an attack of erysipelas twelve days after operation.

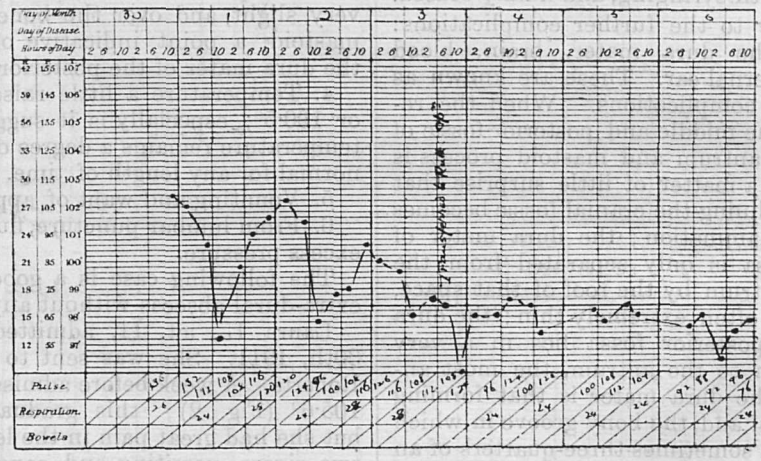


FIG. 2.

3. *Phlebitis of the lateral sinus.* This complication follows on as a natural sequence pathologically of extra-dural abscess. We have seen how the infection attacks the outer layer of the dura mater; and in a similar manner infection spreads to the inner wall of the dura forming the wall of the lateral sinus, and sets up an endophlebitis which may lead to a thrombosis. This is too large a subject to discuss here, but it may be noted that before the stage of actual thrombosis there is a stage of parietal thrombus when a clot is present on the inner wall of the sinus causing many of the symptoms and signs of a total thrombosis, and calling for similar treatment, but having the great advantage of a better prognosis.[1]

The signs and symptoms of a lateral sinus thrombosis are those of pyæmia from whatever cause, briefly they are *rigors*—which, however, may be absent in the case of children—*sweating*, *up and down temperature*, *abscesses* in various parts of the body, *icterus* and *pneumonic signs*.

If a case exhibiting signs and symptoms even suggestive of the presence of phlebitis of the lateral sinus operation should be undertaken (*a*) to prevent further infection by the blood stream and (*b*) to allow free drainage of the abscess in the bone, the first is done by ligature of the internal jugular vein in the neck, the second by opening the mastoid process, completing the "radical" operation and fully exposing the extra-dural abscess. The following is a typical case.

Laura B., æt. 9, was admitted to the Evelina hospital on October 2nd, 1911 (Fig. 3). There was much œdema behind the left ear, the pinna was pushed down and forwards, œdema extended very widely down to upper part of posterior triangle of the neck and up to the upper part of mastoid process; marked tenderness present,

[1] Lateral Sinus Thrombosis (GAZETTE, No. 603, p. 321, 1911).

the neck was a little stiff, the hair was dirty, there was perforation of the membrane and discharge from the ear. She had no headache, no drowsiness nor rigors, she was pale and thin. At operation was found most extensive necrosis of the mastoid process, and a large extra-dural abscess over the lateral sinus and round it; there was no thrombosis.

hole caused by the giving way of the wall. The patient made an uneventful recovery, except for severe hæmorrhage from the lateral sinus at three subsequent dressings.

It is certain that the two rigors indicated passage of septic material (? organisms) into the blood stream from the lateral sinus, and had the jugular not been tied the patient would have

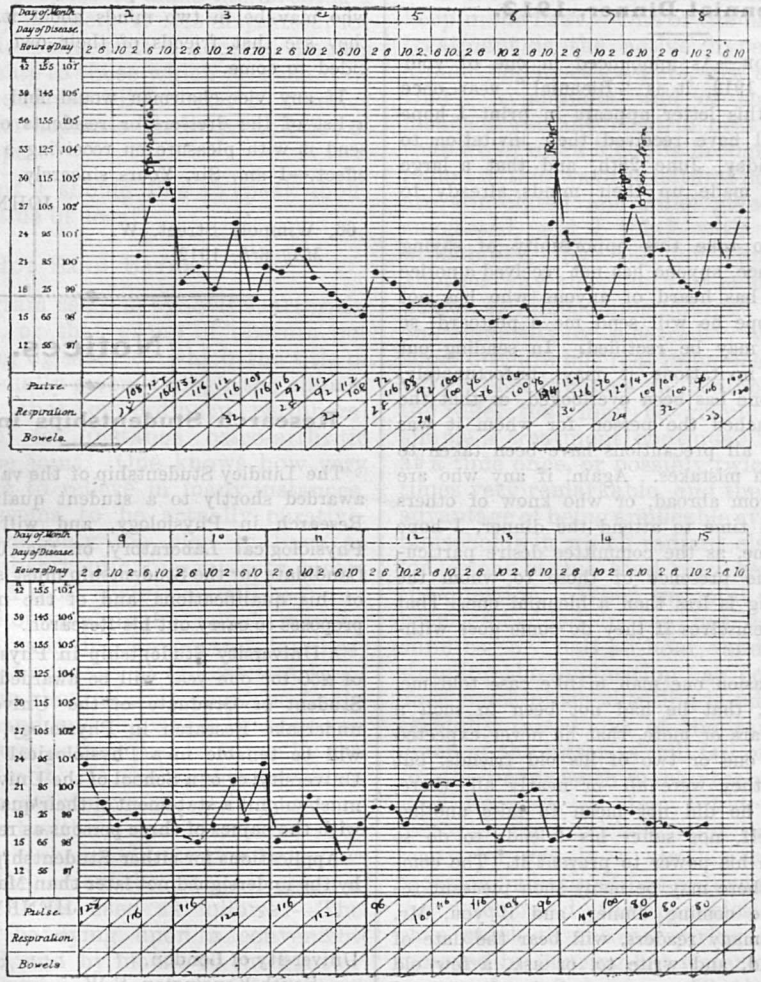


FIG. 3.

Five days after operation patient had two rigors; further operation was at once undertaken, the internal jugular vein was tied, and the wound opened again and more freely; more pus was found tracking about the tip of mastoid process and the sterno-mastoid muscle. Sulphur was used to pack the whole wound. At both operations the lateral sinus bled from a small

had a typical thrombosis leading, perhaps, to pyæmia.

The remaining intra-cranial complications, cerebral abscess, cerebellar abscess, meningitis and labyrinthitis almost invariably follow on a chronic otitis media, and will not be included in this lecture, dealing as it does with the complications of acute otitis media.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

The Biennial Dinner, 1912.

DEAR MR. EDITOR,—As announced in one of your earliest issues for 1912, it is "Biennial" year once more, and before this letter appears in print I hope all Guy's men will have received their invitation to the dinner on Friday, June 28th, and that a large number will have made up their minds already to accept it.

I should like to take this opportunity of saying that if, by mischance, anyone has not received a notice of the dinner, or has heard of anyone who has not been notified, I hope he will send me a postcard, so that the omission may be rectified. In sending out more than 2,000 invitations it may, unfortunately, happen that someone has been overlooked, or that the notice has not reached the person for whom it was intended, although all precautions have been taken to try and avoid such mistakes. Again, if any who are about to return from abroad, or who know of others likely to do so, in time to attend the dinner, I hope they will inform me, as the committee desire particularly to secure the presence of those to whom the chance of attending is less than a biennial one. That they will enjoy themselves if they do come goes without saying.

On the last occasion one man in like case told me, before the dinner, that he had not been to such a function for 20 years or more, that he never expected to see more than one or two of his old friends, but that instead, lo! they were all—or nearly all—there, and for his part he did not mean to miss another "Biennial" himself, nor suffer his friends to do so either, if it was in his power to prevent it. The committee hope that there may be many such pleasant reminiscences of the coming dinner, and if you, Mr. Editor, and your many readers, will bear the date of June 28th in mind, and write to, or ask, a few old friends to come, then the success of the dinner and the enjoyment of the evening will be assured.

There are to be no speeches, only the three toasts, as in 1910, so that men can have their fill of talking to old friends, and the fine hall at the Connaught Rooms, in which the dinner is to be held, affords ample space for getting about easily from one part to another.

In accordance with previous custom, notices will not be circulated to present students, but copies of the invitation may be obtained by them from the Librarian. I need not say that applications from present students will be warmly welcomed, and I hope we may have a goodly gathering of them to support their contemporary vice-chairmen.

I hope to publish *in the* GAZETTE *of May 25th the first list of those who accept the invitation*, and I should much like to have a long list, as it is not only exceedingly helpful to me to hear of those who are coming as soon as possible, as it encourages others, who may be in two minds about it, to accept, when they see that friends of their own have already decided to come.

If any vice-chairman would find it useful to have a list of the dressers or residents of his time, I will send it with pleasure on receiving a post card to that effect.—I am, Sir, Yours sincerely,

JOHN FAWCETT,
Hon. Secretary.

66, Wimpole Street, W.
May 6th, 1912.

Notices.

Research Studentships in Physiology.

The Lindley Studentship of the value of £100 will be awarded shortly to a student qualified to undertake Research in Physiology, and will be held in the Physiological Laboratory of the University. Every Candidate for the Studentship must submit a statement of his qualifications and of the mode in which he proposes to carry out his Research.

A University Studentship in Physiology of the value of £50 for one year will be awarded to a Matriculated Student or Graduate of the University qualified to undertake Research in Physiology. The Studentship will be tenable in a Physiological Laboratory of the University, or of a School of the University. Candidates must submit a statement of their qualifications, together with the names of three persons as references.

Applications for either Studentship must be received by the undersigned not later than May 31st, 1912.

HENRY A. MIERS,
Principal.

University of London,
South Kensington, S.W.
April 30th, 1912.

Revision Classes in Medicine, July, 1912.

There will be a Written Examination for admission to the Revision Classes in Medicine on Tuesday, May 14th, at 10 a.m., in the Committee Room, Medical Office.

The date of the Viva Voce will be announced later.

A Few Therapeutic Points.

An Address delivered before the Woolwich Medico-Chirurgical Society on Tuesday, April 9th, 1912, by Herbert French.

Mr. President and Gentlemen,—In the few remarks that I propose to make this evening I shall necessarily be more or less disjointed, for each therapeutic point that I hope to discuss has no relationship to those which precede it or follow it. My address will consist of a series of sections under separate headings, and not of a continuous paper.

The first point I should like to speak about is that of the value of local

Hot Sand Baths,

especially in certain cases of synovitis, arthritis, muscular pains, or that group of obscure but very troublesome diseases to which the title of "neuritis" is usually given, though the clinical picture is not that of ordinary peripheral neuritis. Take, for instance, osteo-arthritic pains in the knee joint. One knows how very difficult they are to relieve in many instances. No treatment seems to be actually curative. One is, therefore, only too glad to have as many different therapeutic measures to resort to as possible. A most useful one will be found to be periodic hot sand baths, which may be given at home even in the poorest families, without any great expense, as follows:—A large cubical biscuit-tin should be filled with perfectly dry fine silver sand and the whole heated to as high a temperature as can just be borne by the hand immersed in it. If the application is to be made in the evening, a convenient way of warming the sand without special expense is to have the tin with the sand in it standing close to the kitchen fire, or on the range, if there is one, all day. It is used as follows:—The patient should be lying upon a convenient couch, or in bed, and by means of cushions or other similar contrivances a sort of hollow or pool is arranged all round the knee or other part that is to be treated. Under the knee and over the surrounding cushions is placed a strong mackintosh sheet. The hot sand is then poured out of the tin gently and steadily on to and all round the knee so as to fill up the space between it and the surrounding cushions and also to cover over the knee itself as deeply as possible. The limit to which the sand should be poured on depends upon the degree of pressure that the affected joint can stand. Sand being very heavy, an acutely painful joint can only stand a thin layer over it, whereas a less painful, more chronically affected joint may be covered to a depth of two or three inches or more. Sand retains its heat for a long time, but to prevent it cooling more rapidly than necessary it is wise to throw over the whole a second mackintosh sheet to keep in the heat. One of the chief factors in the treatment is the active hyperæmia produced around the diseased part, just as in the case of Bier's hyperæmia and of the treatment by means of radiant electric heat. One supposes that when more blood is brought to the affected region in this way the natural powers of recovery are stimulated and relief given. It has been suggested, and I think with some degree of probability, that the hot sand bath acts in another way also, and this is by reason of the heated sand becoming charged with a considerable quantity of electricity which may have some obscure but real influence upon the parts with which it comes in contact. At any rate the relief that may be given by means of so simple a treatment continued for half-an-hour at a time once, or possibly twice, a day is sometimes very remarkable, and the method has the advantage of being applicable even in the poorest households in which radiant electric heat baths for lesions of this kind may be entirely out of the question. When the joint or other part has been embedded in the hot sand for twenty minutes or half-an-hour, and the time for stopping the application has come, the uppermost mackintosh sheeting is taken off; the limb carefully raised out of the sand, allowing as much of the latter as will fall off from it to do so; the underneath mackintosh sheet, with the sand upon it, is then lifted up bodily and removed, the sand being put back into the tin ready for use in a similar way on the next occasion; a basin of hot water is placed beneath the knee, and the particles of sand that have stuck to the perspiring skin are gently removed by pouring hot water over the part by means of a soft sponge. The limb can then be dried gently with a hot towel, and any other application that may be thought desirable may be made to the part. It is often convenient and useful at this stage to resort to simple massage, or some ointment, liniment, or other application may be put on, with or without massage. The local hot sand bath used in this way, though a very ancient remedy, has not received all the attention that it deserves.

The Essential Oils in Cases of Prolonged Septic Infection.

It was Dr. Foord Caiger, I think, of the South-Western Fever Hospital in London who first advocated the use of essential oil of cinnamon in the routine treatment of typhoid fever. The idea of giving it arose from the wish to use an antiseptic that would lessen the number of pathogenic micro-organisms in the alimentary canal without doing damage to the patient. I do not intend to broach the question of whether the offending bacilli in typhoid fever are really in the intestine, or whether the malady is not rather a septicæmia with a local manifestation in the bowel; but I should like to draw attention to a few points in connection with so-called intestinal antisepsis. I am quite aware that many medical men scoff altogether at the idea of any antiseptic remedies that it may be possible to give by the mouth in doses that are not in themselves harmful to the patient, being able to exert any material effect upon pathogenic microbes in the intestine. I think, however, that those who hold this view do so mainly on theoretical grounds, and because they feel that it is hopeless to render the contents of the alimentary canal actually *bactericidal* in this way. I believe, however, that they do not apprehend clearly that there is a very marked difference between what will kill microbes on the one hand and what will *make them multiply less rapidly* upon the other. It may require a strength of 1 in 1,000 perchloride of mercury actually to kill a particular microbe; but the addition of even so little as 1 part in 1,000,000 to a culture medium may prevent the micro-organism from growing and multiplying even though its life may still remain. One sees this again and again when empyemata are explored and attempts are made to grow the microbes from the pus. When no antiseptic has been used either for the skin or for the syringe but only water sterilised by boiling, the cultures generally succeed; but when even a minute quantity of antiseptic is left in the syringe when the latter has been placed in some lotion after being boiled, or if some antiseptic gets into the needle as it pierces the skin, the report comes back from the bacteriological laboratory that the pus is sterile. This means that no growth appeared upon media inoculated with it, but that is not necessarily the same thing as the pus being sterile. Minute quantities of contaminating antiseptic may have inhibited growth. Just the same inhibition of pathogenic microbial growth—partial, no doubt, rather than complete—can, I am confident, be brought about in the alimentary canal and other parts of the body by comparatively small, and quite safe, doses of various remedies. If the rate of evacuation from, or natural destruction by, the tissues continues at the same rate as before, it is clear that this inhibition of the rate of multiplication must lead to a progressive reduction in the number of micro-organisms present and so accelerate the patient's cure. What is to be done, however, when the organisms are less get-at-able than they are in the alimentary canal? Whereas creosote, salol, B-naphthol, sulphur, sodium sulphocarbolate, mercury, calomel and so forth may all serve as intestinal antiseptics they are not so readily diffused through the tissues. Suppose, therefore, one has a case of chronic deep-seated sepsis, of which certain cases of internal venous thrombosis with pyrexia and other constitutional symptoms form admirable examples, what better antiseptic can one suggest? It is just in cases of this sort that I have repeatedly seen benefit from the use of the essential oils. I have been much impressed by the fact that in patients who have died of typhoid fever in spite of having cinnamon oil treatment all the viscera, even the brain, smell very strongly of the essence even twenty-four hours after death. The oil of cinnamon seems to penetrate to every part of every organ. This being so, it occurred to me that it must inhibit the rate of microbial multiplication not only in the bowel but also in the blood-vessels and viscera; and I am convinced that it does so. The difficulty is, however, that patients become nauseated by the constant repetition of the same oil when it is given in capsules. I have found it a good plan, therefore, to vary the kind of essential oil from day to day; and, whilst there may very likely be need to modify the plan according to the idiosyncrasy of a particular case, a good working arrangement is to prescribe ten minim doses four times a day, in gelatin-coated capsules, of oil of cinnamon one day, oil of cloves the second, oil of peppermint the third, returning to oil of cinnamon on the fourth day, and so on. One of the earlier cases I treated on these lines was a medical man who had recurrent small pulmonary emboli from thrombosed abdominal veins after appendicectomy. He spoke of the treatment as converting patients into "perambulating spice-boxes," but he got perfectly well after a very serious illness and felt certain that he owed his recovery to the three essential oils. It is always difficult to be sure whether recovery in such a case is *propter* or *post*

remedium; but the treatment has seemed to do good in so many similar cases of thrombosis and of deep-seated sepsis that I am inclined to recommend it highly. There are only two warnings that I would utter in regard to it: The first is that there are many different qualities of the essential oils upon the market—it is necessary to obtain the best and to give them as such, and not as aquæ, etc. The second is that if a capsule containing ten minims of a pure essential oil is given on an empty stomach the patient will experience a very sudden and exceedingly severe pain in the epigastrium or left hypochondrium, generally within half an hour of taking the capsule. This is due to the whole of the oil being liberated on to a small area of the gastric mucosa at the moment when digestion opens the capsule. The severity of the pain and its suddenness can hardly be believed by one who has not experienced it. It has been compared by some to that which they imagine would result from a pistol shot in the abdomen. Fortunately, this untoward effect is easily avoided—the capsule should be given when there is already food in the stomach; or failing that, a cup of milk or some other fluid should be drunk within a few minutes of taking the capsule. The oil is thereby spread over a larger part of the interior of the stomach when it is liberated and no pain is felt.

(To be continued.)

Dental Appeal.

Second List of Subcriptions promised or given to this Fund.

It is hoped a still wider response may yet be made to the Appeal, printed in our issue of March 16th. Any readers desiring copies for distribution may obtain the same on application to the Treasurer of the Fund, Guy's Hospital, S.E.

	£	s.	d.
*Conrad Achner, Esq, ...	15	15	0
*F. N. Doubleday, Esq.	15	0	0
*W. Archer Hodgson	15	0	0
W. A. Maggs, Esq.	15	0	0
*H. C. Malleson, Esq.	15	0	0
*E. A. Tomes, Esq.	15	0	0
Walter Elwood, Esq.	5	0	0
W. H. Elwood, Jnr., Esq.	5	0	0
H. B. Ross, Esq.	2	10	0
Miss E. M. Herbert Smith	1	6	3
C. E. Rice, Esq.	1	1	0
Philip Scott, Esq.	1	1	0

* Payable in three instalments.

The 29th German Congress of Internal Medicine.

E. P. POULTON, M.A., M.B. Oxon., M.R.C.P., Redcliffe Travelling Fellow, Wiesbaden, April 15th–19th.

THIS was the fifth year in succession that the Congress had been held at Wiesbaden, and all those who know the beauties of the situation, and the splendour of the Kurhaus and grounds, will agree that no other place could be chosen better fitted for such an event. The duration of the Congress was four days, and the meetings took place daily from 9—12 o'clock, and from 1—4 o'clock in the large concert hall of the Kurhaus. Another room was used for exhibits, chiefly from German firms, and the members of the Congress were allowed free use of the other rooms in the building, *e.g.*, reading rooms, writing rooms, etc. The Congress did not sit simultaneously in sections, and consequently it was always possible to listen to an important communication without the necessity of missing something of interest elsewhere.

In spite of the fact that by this means the proceedings were necessarily lengthened, nearly a hundred communications were made during the four days, and there were plenty of discussions on different subjects as well. The concert hall itself is magnificently decorated, but in this case it was much too large for the size of the meetings, and the acoustic properties were bad. An excellent plan was adopted for ensuring that the reports appearing in the newspapers were accurate and not unduly sensational. Reporters were not admitted, but a special committee was formed whose duty it was to abstract interesting communications for transmission to the press.

The scope of the Congress included the whole of medicine, as the term is used in England, with the exception of neurology, psychology, and dermatology. It was by no means confined to clinical medicine. There were a large number of papers of a fairly scientific character. As Wiesbaden itself contains over 300 doctors, it may readily be imagined that the local element at the meetings was considerable.

An excellent idea of the kind of work in medicine that is producing the greatest interest in Germany and Austria at the present time is obtained by noting the length of time allotted to each subject in the diary of the Congress. The whole of the first day was devoted to the investigation of the stomach and intestines by means of the X-rays, and even with that liberal allowance of time, amounting to a quarter of the whole, a number of communications were crowded out, and had to be read on the following day. The subject of radio-activity occupied the greater part of a morning, and about the same time was allotted to tuberculosis and to heart disease.

The President, Prof. Stintzing (Erlangen), opened the proceedings, and he was followed by Prof. Rieder (Munich), who introduced the subject of the X-ray method in the diagnosis and treatment of diseases of the alimentary tract. His address was of a very general nature, and need not be described here. He may be regarded as the pioneer in investigations of this kind, for his work began shortly after Röntgen's original discovery in the Munich Physical Laboratory some fifteen years back. Rieder was the first to demonstrate the movement of the stomach by means of the cinematograph. A noteworthy feature of the exhibits was a series of plates taken by him showing the passage of food through the alimentary tract in a healthy person. The act of swallowing was illustrated by exposures repeated every half-second, and the difference in appearance between the passage of a bolus and a quantity of liquid down the œsophagus was clearly shown. A similar process was adopted for showing the gradually increasing accumulation of food in the stomach. The cardiac portion is first filled up, and it is only later that the pyloric and intermediate portions become filled. The movements of the stomach were also shown on successive plates, and also the movements in the neighbourhood of the ileo-cæcal valve.

Finally, a series of 24 plates were shown, illustrating the position of a bismuth meal every hour of the 24. Such a series showing the actual rate of transmission of food through the alimentary canal in a healthy person must be of infinite value for diagnosis in pathological conditions.

Those members of the Congress who had communications to make were restricted to five minutes each, and in many cases it required a very strenuous application of the bell to prevent the author from occupying twice or three times this amount. Some of the more interesting of these communications may be briefly described. A very striking slide was shown by Holzknecht (Vienna). He gave a patient suffering from gastric ulcer a suspension of bismuth salt in water. The bismuth settled in greatest amount in the ulcer, the water passing on. On the screen the ulcer was shown up as a small black mark on the lesser curvature, easily distinguishable from the grey shadow cast by the rest of the stomach.

A congenital lengthening of the sigmoid has been described as one of the rare causes of constipation. Albrecht (Leipzig) showed plates illustrating this condition in the case of four sisters. The ascending, transverse and descending colons were normal, but the whole of the pelvic region was filled with masses of dark coils, representing the lengthened sigmoid filled with bismuth.

Alwens (Frankfort-a.-M.) showed the position of the infant's stomach on plates which were taken with a Desaner's apparatus, which gives an exposure of 1/300 second. The extension of the stomach towards the right increases with the amount of food taken and the amount of air swallowed; the latter is greater when milk is taken than when the food is of thicker consistence. The same apparatus was used for investigating the movements of the heart, and an actual cinematograph representation of these movements was shown at the Congress by Küpferle (Freiburg).

Some striking slides were shown by Hausmann (Rostock). The author, by means of deep palpation, marked out the transverse colon and the greater curvature of the stomach, and subsequently verified his results by the X-rays. This method gave perfectly accurate results in a certain percentage of cases, about 60 or 70 per cent.

In the domain of radioactivity, a considerable amount of work has recently been done by Falta (Vienna) on the therapeutic value of thorium X. This substance, which is much cheaper than radium, can be given by the mouth or injected intravenously. After an injection in animals, the spleen, suprarenals, and blood show marked radioactive power. About 60 per cent. of the substance remains in the body, very largely in the bones. Falta's greatest success appeared to be in cases of leukæmia.

The influence of radium on gout was discussed at some length, and the most contradictory opinions were expressed. The actual experiment for observing if radium salts cause a solution of uric acid salts had been performed by placing the two substances together in the anterior chamber of the eye, but this had yielded a negative result. Other positive results obtained in a similar way could be ascribed to bacterial action resulting from infection, and not necessarily to the action of the radium.

The town of Wiesbaden has erected an Emanatorium, and the application of radium emanation is advertised freely as the new method of cure for heart disease, gout, rheumatism, and all the other refractory diseases for which patients usually visit a spa. The emanatorium itself consists of a room, shut in from the outside air by double doors. In the room are placed comfortable chairs sufficient in number for 40 patients; a constant temperature is maintained. The stale air is withdrawn from the room and passed over lime for the absorption of carbon dioxide. It is then sprayed with fine jets of water from the Koch-brunnen, a radioactive thermal spring. The amount of the emanation is further increased by bubbling the air through a solution of radium salt. Finally, the oxygen that has been previously used up is replaced, and as much ozone is added as required, and the air passed again into the room for consumption. One sitting usually occupies two hours, for which a fee of 3 marks is charged.

Perhaps the greatest novelty of the Congress was the discussion on "Neo-Salvarsan." It is just over two years ago now that Ehrlich announced the pre-

paration of 606. This new compound also comes from Ehrlich's laboratory, and is the outcome of attempts to prepare a more satisfactory substance. That the labour involved has been considerable is shown by the fact that the new substance has the laboratory number 914. It is a modification of salvarsan, and the difference is that one of the NH_2 groups in salvarsan is changed in this compound into a group $NHCH_2OSONa$. It is a yellow substance, very readily soluble in water, and the fact of greatest importance is that the solution is perfectly neutral in reaction. It has a stronger action on trypanosomes in animal experiments than salvarsan, and yet it is less poisonous to the host. The solution in water is ready for intravenous injection, but it must not be shaken violently, as it readily oxidises, and its products of oxidation are more poisonous. In Magdeburg, Schreiber has given 1,200 injections to 230 patients, and speaks highly of the substance, both when given intravenously and intramuscularly. Owing to its less poisonous nature, the dose of neo-salvarsan is greater than salvarsan, viz., 1·5 grms. for an adult man, and ·9 grm. has been given to a man over 66.

A most interesting discussion took place on the value of salvarsan in scarlet fever. Felix Klemperer (Berlin) described how, during the last year, he had treated a series of the severest cases of this illness by intravenous injection. Full doses were given and the patients were of all ages. The mortality in the series (39 in number) was 8 per cent.; this compared very favourably with his usually observed death rate of 25 per cent. in cases of the same severity. In 37 out of the 39 cases the temperature rose immediately after injection, but practically disappeared in a few hours. These observations were supported by a doctor from Duisberg, who had, however, employed smaller doses; to this he ascribed the fact that the temperatures of his patients were not influenced to the same extent as in Klemperer's cases. His series consisted of 20 severe cases, and he noticed particularly that the treatment lessened the tonsillitis, and he observed none of the dreaded sequelæ of scarlet fever.

After a number of other speakers, Ehrlich himself took part in the discussion. He professed himself well pleased with the results obtained, but stated that the greatest caution must be employed in febrile cases. Only freshly distilled water should be used for the solution of the compound. Water obtained from chemists was not always by any means free from objection in this respect. The action of salvarsan appeared to be directed against the virus of the disease, even though this was unknown at present.

In the discussion on tuberculosis, Liebermeister (Düren) stated that by using the antiformin method he had succeeded in isolating an acid-fast bacillus from the blood in cases of phthisis and also in cases of pleurisy, endocarditis, and peritonitis. On injection into guinea-pigs the results indicated that these bacilli were in reality B. tuberculosis. He also obtained similar bacilli from the blood of a number of apparently healthy people, and suggested that a tuberculous blood infection in adults was more commonly the precursor of localised tuberculosis than is usually supposed. Considerable doubt was expressed at these results.

Rosenbach's tuberculin was also discussed as a diagnostic and therapeutic agent. One observer stated that after an injection he could always see a change in the X-ray picture of the lung, indicating an increase in the activity of the tuberculous process.

In the field of metabolism, Grafe (Heidelberg) stated that he had succeeded in keeping dogs in nitrogen equilibrium by administering ammonium salts, after securing that the energy needs of the animal were plentifully supplied by a carbohydrate and fat diet. By this means he claims to have secured the synthesis of protein in the animal body.

The exhibits were supplied by all the more important German firms. Both Zeiss and Leitz have produced a new and much more accurate method of blood counting. Instead of the cumbersome method of sucking up blood to a certain mark and then sucking up the dilating fluid in the same pipette to another mark and subsequently mixing, a proceeding that every ward clerk knows leads to innumerable mistakes, in the new apparatus two pipettes are used, a small one for the blood and a larger one for the dilating fluid. The blood and the dilating fluid are measured separately, and then run into a small bottle furnished with a stopper of some kind, when the mixing takes place. A drop out of the bottle is then transferred to the counting chamber. If, in addition to this procedure the Bürker counting chamber is used, which enables two separate counts to be performed, and very much simplifies their performance, blood-counting may become a pleasure instead of an anxiety, and results of reasonable accuracy may be obtained by everyone.

One firm has produced an instrument for observing the larynx and nasopharynx by direct illumination. The instrument is based on the same principle as the cystoscope, and somewhat resembles a cystoscope in appearance, but is much shorter. The connection with the battery is made in the same way, and then the instrument is passed to the back of the throat. On turning on the light and looking through the instrument, a non-inverted image, either of the larynx or nasopharynx, is obtained.

Three or four separate new apparatuses were on view for the production of an artificial pneumothorax, with cylinders for measuring accurately the amount of nitrogen injected.

As may readily be imagined, the various radium companies were well to the front. One firm had collected and bound together all the literature on radioactivity in medicine that had ever appeared in any

German scientific journal, and copies were distributed freely. The apparatus was chiefly of two kinds; on the one hand there was the inhalation method, in which air was charged with radium emanation, and, on the other hand, there were various methods of procuring a radioactive water for drinking purposes.

It is hoped that these notes may give a general idea as to the kind of ground covered by the Congress, and on this account the descriptions have been made purposely short. At the same time an attempt has been made to select for description only the more original and striking communications.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

The Prevention of Dental Caries and Oral Sepsis. By H. P. Pickerill.

This book is the essay which won the quinquennial Cartwright Scholarship and Gold Medal of the Royal College of Surgeons of England. The author's attention has been chiefly directed to the structure of enamel and the properties of the saliva in regard to the production or prevention of dental caries. Teeth are empirically classed as:—

Native.
Sclerotic, or hard, well-formed teeth.
Malacotic, or soft teeth.

On the surface of enamel, markings are described. which the author terms "imbrication lines." These he considers are due to checks in the secretive function of the ameloblasts due to the pressure of the crypt in which the tooth is developing.

This is attributed to two causes:—(*a*) The hereditary tendency of the ameloblasts to continue functioning to a certain definite extent. (*b*) To the limiting influence of environment, expressed as a diminution in the size of the jaws, *i.e.*, the result of altered habits of diet, and also to some extent of natural selection.

The imbrication lines are described as being much more frequent in "soft" malacotic teeth, which are those most liable to decay. The remedy for these deficiencies of formation Professor Pickerill considers to depend on the early and efficient mastication of food, which will result in a proper development of the jaws, giving room for the proper formation of the teeth, and especially of the enamel. The properties of the saliva were tested by an exhaustive series of experiments which are described in detail in the book.

It is interesting to find that, as was taught by Mr. Maggs at Guy's, the quantity and the alkalinity of the saliva is always well marked in those persons who are relatively free from dental caries. This flow of saliva the author demonstrates to be directly due to efficient gustatory stimuli, the alkalinity being inversely related to the acidity of the stimulus. It is also shown that the amount of ptyalin present in saliva is directly dependent upon the stimulus of a correct diet. Organic acids, such as are contained in raw fruits, furnish the most suitable stimulus for producing a healthy flow of efficient saliva.

The importance of the inclusion of such foods at every meal is therefore shown, and, as Professor Pickerill points out, a dinner commencing with hors d'œuvre and ending with dessert is the only modern meal which at all fulfils these requirements.

The author's conclusions are that food requiring efficient mastication and containing as an essential ingredient fruit, is of greater importance than the artificial means of cleansing the teeth hitherto in vogue. The book is well supplied with illustrations, and is well printed. One lays down the book feeling that this careful study of the pathology of dental caries has appreciably broadened our understanding of the problem.

Births.

ACKROYD.—On April 29th, at Great Shelford, to Dr. and Mrs. Harold Ackroyd, a son.

BROCK.—On April 30th, at 21, Streatham Hill, S.W., the wife of Ernest H. Brock, M.D., B.S. Lond. of a daughter.

COOK.—On April 15th, at Bournemouth, to the wife of I. R. Cook, M.B., a daughter.

DUNCAN.—On April 26th, at Gardyne, Crawshawbooth, Lancs., the wife of William Arthur Duncan, M.B., of a son.

LEWIN.—On May 1st, at 1, Haling Park Road, South Croydon, the wife of Dr. George Lewin, of a son (still born).

TICEHURST.—On April 27th, at 54, London Road, St. Leonards-on-Sea, to Dr. and Mrs. Gerald A. Ticehurst, a son.

Marriage.

MORTON PALMER—MALCOLM.—On the 27th April, at St. Botolph's, Heene, by the Right Rev. Bishop Royston, D.D., assisted by the Rector, the Rev. J. P. Fallowes, M.A., and the Rev. L. S. Blenkins, M.A., Albert Sydney Morton Palmer, M.A., M.D., B.C. Cantab., younger son of F. J. Morton Palmer, M.B., F.S.A., of Holford, Worthing, to Alice Daisy, daughter of the late William A. Malcolm, of the Grange, Cults, Aberdeenshire, and niece of Mr. and Mrs. Robert W. Charles, of Heene Cottage, Worthing.

WORNE—CRAIGIE-HALKETT.—On April 24th, at St. Michael's, Chester Square, S.W., by the Right Rev. Bishop Ormsby, D.D., assisted by the Rev. P. Waddington, Chaplain of St. George's Hospital, the Rev. Oscar Worne, Vicar of Stanway, Gloucestershire, to Dorothy, eldest daughter of the late Colonel W. G. Craigie-Halkett.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 624.] MAY 25, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	201–203
Guy's '89 Club	203
Pass List	203
Intravenous Ether Anæsthesia. By E. G. Schlesinger	204–206
Correspondence	207–209
Change of Address	209
Chronic Appendicitis. Clinical Lecture by F. J. Steward...	210–213
Appointments	213
Papers by Guy's Men	213
A Few Therapeutic Points. An Address delivered before the Woolwich Medico-Chirurgical Society, by Herbert French ...	214–219
Two Cases of Pulmonary Embolism following upon the Intra-Muscular Injection of Mercurial Cream. By C. H. Mills ...	219
Sport	219–220

Passim.

AN event of great interest to all connected with Guy's occurred last week, when the Hospital was honoured by a visit from Dr. W. J. Mayo, the elder of the two famous brothers, and, perhaps, the greatest abdominal surgeon in America or any other country. Dr. Mayo, with whom were Mr. Harold Stiles, of Edinburgh, Dr. Balfour, and Dr. Graham, one of the physicians attached to the hospital at Rochester, had only two days in England, and it is a matter of some significance that he chose to spend both days at Guy's. Some idea of the enormous amount of work carried out by the brothers can be gained by a study of the last annual report of St. Mary's Hospital, Rochester. For example, during the year over 1,000 operations for goitre were performed, 220 hysterectomies, 1,000 appendicectomies, 500 cholecystostomies, and 126 operations for intestinal stasis, while the total operations for the year were 8,745, over 4000 of these being abdominal. Dr. Mayo watched an operation by Mr. Lane for a fracture of the humerus and of the radius and ulna, and two short-circuiting operations for intestinal stasis. He expressed himself as extremely pleased with the results obtained, and remarked that the technique of the operation was one of the finest things he had seen in Europe. The question of the operative treatment of intestinal stasis is receiving a good deal of attention by the best American surgeons, and the amount of work done on the subject over there is already very large.

THE system in force in Rochester and elsewhere in America by which anything of professional interest in any other country is at once investigated on the spot is one which is well worthy of emulation. There can be no doubt about the advantages of actually seeing work as it is done at the place of its origin, and the poor results obtained by the imitators of any new method are undoubtedly due, in many cases, to a trust in published descriptions or to hearsay evidence. The value of actually seeing the cases before judging of any work is too obvious to need comment. Further, the broadening of outlook which results from such visits to workers in other countries, cannot but be productive of improvement in the work done at home, and is the best means of keeping out of the groove into which workers in an institution are so apt to get. Had Dr. Mayo's time not been so very limited it would have been of great interest and advantage to Guy's men to hear his views on the many questions in which he is interested, and it is to be hoped that such incidents as the recent lectures by Professor Muller and Dr. Coley will become more frequent in the future. The sciences are essentially international in character, and the greatest possible interchange of ideas and opinions is the surest road to progress.

IT has recently become the custom at Guy's for men before taking up any special appointment at the Hospital, to go abroad in order to study foreign methods in their particular department. The advantages of this are obvious,

and are particularly well seen in the multitude of new ideas which have been introduced in our special departments recently. If it were possible for this scheme to be extended there can be no doubt about the benefit which English medicine and surgery would derive, and what is wanted is more scholarships of the nature of the Radcliffe Travelling Scholarship at Oxford or the Arthur Durham Travelling Studentship at Guy's. Money for such a purpose is very badly needed, and would undoubtedly prove a good investment in so far as the furtherance of English medicine and surgery is concerned.

WE are asked to draw the attention of our readers to a grand Matinée to be held at the St. James's Theatre, on Thursday, June 6th, at 2.45 p.m., in aid of the British Medical Benevolent Fund Guild. The British Medical Benevolent Fund is our chief professional charity, and the British Medical Benevolent Fund Guild is an Association of Ladies for helping the Fund. The objects of the Guild are to make the British Medical Benevolent Fund more widely known, and to obtain for it additional support, especially from women, and further, to supplement its work by giving help and practical sympathy to its beneficaries, and to others, of a more personal character than is possible for the parent Fund.

FOR the Matinée in question a magnificent programme has been provided by prominent members of the dramatic profession, the entertainment including the first act of "The Second Mrs. Tanqueray," a scene from "Colonel Newcom," "A Slice of Life," by J. M. Barrie; Miss Lena Ashwell in "The Constant Husband," and a one-act play in which Miss Violet Vanbrugh and Mr. Arthur Bourchier will appear. The cast includes the best known names in the dramatic profession. The price of the tickets ranges from two guineas for the stalls to 4s. for the gallery, and these may be obtained at the theatre, or from a number of ladies amongst whom are Lady Fripp and Mrs. Hale White. It is hoped that the greatest possible support will be given to this Matinée and that it will serve, not only to increase the funds of the Guild, but also to bring its work into considerably more prominence than it has hitherto enjoyed.

WE would draw the attention of our readers to the fact that the Annual Sports of the Athletic Club will be held on Saturday, June 1st, at the Clubs' Union Ground, commencing at 2.30 p.m. There will be scratch and handicap races in each of the following events: Hurdles, 100 yards, 220 yards, 440 yards; Half-mile, One Mile, Three Miles, Long and High Jump, Putting the Shot, and Throwing the Hammer. Entries close at midday on Monday, May 27th. Entry forms and tickets of admission (Price, 1s.; 6d. if bought before June 1st, Clubs' Union Men and Nurses free), may be obtained from the secretaries, Messrs. H. W. Evans and H. Mather. Mrs. Cameron has kindly consented to distribute the prizes, and it is hoped that there will be a large attendance to support the competitors.

IN our Correspondence columns will be found a letter from Mr. Mandel, asking us to accept responsibility for some notes in Passim of our last issue. We are only too pleased to do so, and would take this opportunity of pointing out once more that the Editor is entirely and solely responsible both for Passim and for any unsigned articles appearing in the GAZETTE. That it is impossible for the GAZETTE to reflect the opinions of such a composite body as the students of a large hospital is obvious, and no attempt is, in general, made to do so. Our Correspondence columns are always open to those who are not in agreement with us, and we welcome any criticisms, providing only that they are expressed with a common regard for courtesy.

THE report of the hospital for the year 1911, which has recently been published, shows some interesting facts. During the year 9,677 In-Patients were accommodated in 617 beds, while 136,027 patients attended at the Out-Patient Department, and further, 1,079 Patients on their discharge were received into convalescent homes and similar institutions. The Income and Expenditure Account shows that for the fourth year in succession, income

exceeded expenditure, but in 1911 the balance to the good was comparatively small, being £2,883 13s. 8d. The total income for 1911, Ordinary and Extraordinary (excluding the Re-endowment and Building Funds), amounted to £71,987 13s. 6d., being £4,137 14s. less than the income in 1910. Of the total income £41,612 0s. 4d. was derived from invested property, £5,718 6s. 3d. from patients' fees, and £6,927 9s. 10d. from legacies. The report contains some interesting photographs of parts of the hospital, and appeals for new annual subscriptions, and for the sum of £60,000 to provide separate children's wards, an increase of beds for the special departments, the rebuilding of Clinical House, and other necessary works. The whole volume shows admirably the extent of the work which Guy's Hospital is doing, and it is hoped that this work, large as it already is, may be greatly increased in the future, providing sufficient support is forthcoming from the public.

We are asked to call the attention of our musical readers to a new quarterly review of music and the allied arts, the first number of which appeared on May 20th. The Editor of this journal is, we understand, sixteen years of age, a fact sufficiently surprising by itself, but one which, taken in conjunction with the excellence of the work he has produced, should secure for *The Music Review* a large sale and a long career.

Guy's '89 Club.

The Seventeenth Annual Meeting and Dinner of Guy's '89 Club, took place at the Hotel Cecil, on May 8th, Dr. A. C. Hovenden, President, in the Chair. There were also present Messrs. W. J. Henson, H. W. Collier, R. H. Hayes, M. P. Jones, F. J. Steward, E. F. H. Hardenberg, C. D. Edwards, R. H. Fagge, H. W. Beach, H. Hewetson, W. E. Robinson, C. H. Fagge, C. E. Michael, J. A. Howard, W. S. Handley, J. Moore, E. C. Taylor, C. A. Ensor, A. A. H. Partridge, A. P. Beddard, W. G. Mumford, G. L. Eastes, and H. J. Spon. A most enjoyable evening was spent, and the following members were elected officers for the ensuing year: President, Major H. Hewetson, R.A.M.C.; Vice-President Mr. R. H. Fagge; Secretary and Treasurer, Mr. Harry Spon. The Eighteenth Annual Dinner will be held at the Hotel Cecil on May 14th, 1913.

Pass List.

Royal College of Surgeons of England.

LICENCE IN DENTAL SURGERY.

First Professional Examination, May, 1912.

Mechanical Dentistry and Dental Metallurgy.

†Brough, K. C.	§*Machin, L.
Cole, A. H.	§*Neal, F. J.
Cowell, R.	Oliver, C. H.
Crocker, C. J.	*Pearmund, A. S. W.
†Dyke, V. R.	*Pickett, R. J.
*Flooks, W. T.	Pitman, K. C.
§†Garrard, J. L.	Pilbeam, L. S.
Hammond-Williams, W. C.	Saunders, G. V.
James, H. G.	Smith, H. L.
†Johnson, S. E.	Stebbings, J. M.
†King, P.	§*Stevens, S.
Lewis, E. C.	Underwood, A. B. G.
†Lloyd, W. G.	Wright, J. E.

*Mechanical Dentistry only. †Dental Metallurgy only.
§ Denotes completion of Examination.

Final Examination, May, 1912.

Adams, R. R.	Medlock, C. H.
Bevis, S. W.	Morris, W. L.
Chapman, A. J.	Neale, C. D.
Cocks, J. S.	Percy, A. J.
Davies, J. E.	Pickett, L. R.
Daw, H.	Shepherd, H. E.
Fraser, E. L.	Stranack, W. S.
Housden, C. H.	Tanner, R. D.
Huckett, E. S.	Thompson, W. A.
Jacques, F. A.	Tipper, F. J.

Tustian, T. B.

Final Examination for the Licence in Dental Surgery.

May, 1912.

Parts I. & II.

*Davies, J. E.	*Medlock, C. H.
*Fraser, E. L.	*Morris, W. R.
*Housden, C. H.	*Pickett, L. R.

*Tustian, T. B.

Part I. only.

Achner, C. A.	Mayer, J. W.
Adderley, W.	Neely, H. B.
Barr, D. H.	Neely, W. G. S.
Boutwood, R.	O'Kane, W. J.
Buck, A. D.	Pasmore, I. W.
Henderson, T. E.	Schneider, M.
Lawrence, F. W.	Stainer, C. H.

Stradling, F. B.

Part II. only.

*Adams, R. R.	*Neale, C. D.
*Bevis, S. W.	*Percy, A. J.
*Chapman, A. J.	*Shepherd, H. E.
*Cocks, J. S.	*Stranack, W. S.
*Daw, H.	*Tanner, R. D.
*Huckett, E. S.	*Thompson, W. A.
*Jaques, F. A.	*Tipper, F. J.

* Denotes completion of Examination.

Intravenous Ether Anæsthesia.

By E. G. SCHLESINGER.

The subject of anæsthesia is one in which, of late years, many advances have been made, both in the matter of the drugs employed, and the manner of their administration. Of these new methods, one of the most recent is by intravenous infusion, and the results that have so far been obtained justify the opinion that this innovation is destined to take an important and permanent place among the recognised modes of producing anæsthesia.

Burkhart (1) was one of the earliest to study this subject by the experimental method. He first used a saturated solution of chloroform in normal saline, both in animals and in four human subjects. The results obtained were satisfactory as regards the anæsthesia, but a troublesome hæmoglobinuria was found to follow, and consequently this method was given up. Ether in a 10 per cent. solution was next tried, but was found to present the same disadvantages as chloroform, and was also very liable to induce thrombosis. A 5 per cent. solution was therefore used and was found to be in every way satisfactory. The method adopted was an intermittent one, enough of the solution being injected to produce anæsthesia, and a further injection being given if, and whenever, the patient showed signs of coming round. This method was employed in 33 cases with no bad results.

Kummel (2), at the German Surgical Congress held in April, 1911, reported his results in 90 cases, and although thrombosis occurred in his first 11 cases, he was later able to obviate this complication entirely by improvements in technique. He is emphatic on the advantages of this method in certain cases, and lays particular stress on the small amount of ether used, and the rapidity with which the patients come round. He points out the extreme difficulty of introducing anything which bears the stigma of novelty, and refers the small use which has as yet been made of intravenous ether to the well-known shyness of the profession when confronted with anything new. He has also used Hedonal and Isopral intravenously, but has quite given them up in favour of ether, because of their toxicity and prolonged after-effects. The contra-indications to the method are, in his opinion, arteriosclerosis, myocarditis, and any condition of undue plethora. In the discussion which followed this paper, Hagemann referred to 11 cases with no bad results, and several other observers who had also used it, expressed themselves favourably. Wendel laid particular stress on the value of infusion anæsthesia in thoracic operations with the hyperatmospheric apparatus. Kuttner (3) has had several cases of embolic lung complications; he was, however, employing the intermittent method of Burkhart.

Rood (4) has employed intravenous ether anæsthesia in a large number of cases with excellent results. Recognising the disadvantages, both from the surgeon's and the patient's point of view, of an intermittent form of anæsthesia, he employed a continuous method, regulating the flow of the solution according to the ordinary signs of anæsthesia. He has reported 21 cases with uniformly successful results, and since then has used the method further in a very large number of cases.

Briefly, the advantages and indications claimed for intravenous ether may be summarised as follows :—

(*a*) In operations about the head, neck, and mouth, both for the convenience of the surgeon and because of the lessened risk of lung complications.

(*b*) In patients suffering from bronchitis or other lung lesions at the time of operation, because of the lessened pulmonary irritation and the rapidity with which the patients come round.

(*c*) In patients suffering from severe shock or hæmorrhage, because of the beneficial effect of the saline and of the small amount of ether used.

(*d*) In very nervous patients, because of the absence of any terrifying face-piece or suffocating vapours. That this last point is a very real one is evidenced by the enthusiasm of patients for this method once they have had experience of it.

The dangers of intravenous ether anæsthesia are almost entirely those of sepsis, but these are, or should be, so easily avoided that they cannot be held to form a valid objection to the method.

Technique.

The majority of patients are prepared, as for open ether, by a preliminary injection of morphia, gr. $\frac{1}{4}$, and atropine, gr. $\frac{1}{100}$, or of the com-

bination of scopolamine, atropine and morphia, but this is by no means essential, and is only really indicated in robust patients who are to be subjected to what may be termed a "deliberate" operation. The arm to be injected (usually the left), is laid on a long splint, and fixed with a bandage at the wrist, both to prevent slipping and to avoid disturbance of the cannula during movement. The skin over the elbow is thoroughly sterilised with iodine, and about 40 minims of a 4 per cent. solution of eucaine lactate are injected into the skin over the vein selected. An incision is made and a double piece of cat-gut is passed under the vein. This is facilitated by having an aneurism needle, which is sharpened at the end so that it will force its way beneath the vein. The distal end of the vein is now ligatured, and a longitudinal cut is made into the vein above this ligature. The cannula, *with the solution flowing*, is now inserted and tied in; the cannula is fixed to the arm by a piece of Mead's strapping, and the whole wound, cannula included, is covered with a large pad wrung out of iodine. The solution is allowed to flow as fast as it will until the patient is under, after which the flow is regulated according to the general signs of anæsthesia. Ether can be detected in the breath after one or two breaths, and usually six to eight ounces of the solution will suffice to get the patient well under. A point which must be remembered in using this method is that the lungs are here purely excretory in function, and, therefore, that the deeper the patient breathes the more ether he will need, and the sooner he will come round, and vice versa.

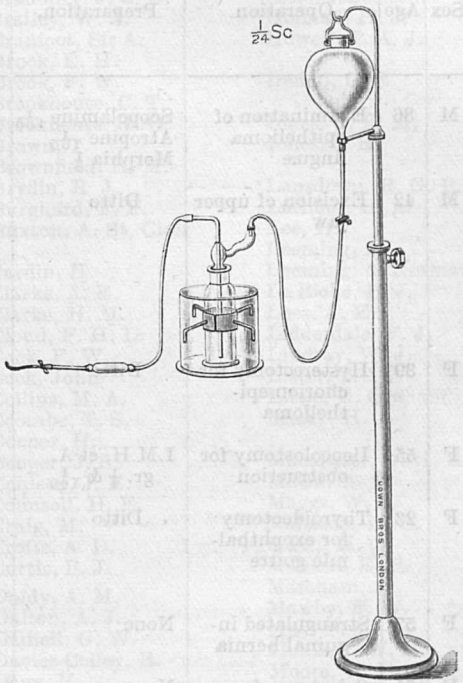
Apparatus.

The apparatus that has been used (see figure) is a modification of that employed by Rood, and is made by Messrs. Down Bros. It consists essentially of three parts: 1. The reservoir; 2. The combined dropper, warming tube and bubble trap; and 3. The cannula.

The warming apparatus consists of an inlet after the style of Dr. Laurie's saline drop indicator, leading into a warming chamber. The rate of flow can be estimated from the fact that the number of drops passing through it in 7½ seconds indicates the rate of flow in ounces per hour. Fluid is conducted *from* the warming chamber by a tube reaching to the bottom; consequently there is no danger of bubbles of air or of evaporated ether being carried over into the patient's circulation. This chamber is contained in a glass vessel full of water at a temperature which must be below 100° F., since above this the ether evaporates.

The cannula is of silver, and close to it is inserted a small glass bubble trap, which also serves as a window to give warning of any regurgitation of blood. The reservoir is suspended from a stand at a height of between three and four feet above the patient, and a screw clip placed on the tube leading from it controls the rate of flow.

An accessory of the apparatus is a glass mixing flask graduated at 38 and 57 ounces. Cold sterile normal saline is poured in up to either graduation, and 2 or 3 ounces of ether respectively, added, thus forming a 5 per cent. solution. When using, the solution is placed in the reservoir and the whole apparatus filled.



This is best accomplished by attaching the tube leading from the reservoir to the *out-let* of the warming apparatus. The saline is now allowed to flow until the latter is full, when the attachment is reversed. The cannula *must be inserted with the solution flowing*, otherwise clotting is likely to occur. The whole apparatus must, of course, be carefully sterilised before use, either by boiling, or, better still, by packing in a suitable bag or case, and having the whole dry sterilised.

Cases.

Mr. G. Marshall, who was the first to use intravenous ether at Guy's, has given it in seven

cases, with uniform success, although in one case the period of induction was unduly prolonged.

Both in these and the appended eight cases there has been no thrombosis whatever, and although in one of my cases the wound healed slowly, yet it did so with no signs of sepsis. A point to be remembered is that the wound always shows, for a few days, some redness, this being due to the irritation of the ether solution, and not in any way to sepsis.

In one case, not included in the table, an intravenous anæsthetic was begun, but, owing to the solution not having been flowing when the cannula was inserted, clotting occurred in the cannula, and since there was no particular contra-indication chloroform was given instead. In this case, the solution, although running, was doing so so slowly that the patient excreted the ether as fast as it flowed in, and consequently an anæsthesia sufficiently deep for surgical purposes was not obtained. This failure was obviously due to faulty technique, and is in no way a criticism of the method.

No.	Sex	Age	Operation.	Preparation.	Induction Time.	Time of Operation in hours.	Amount of Solution used in pints.	After-effects.
1	M	36	Examination of epithelioma linguæ	Scopolamine $\frac{1}{100}$ Atropine $\frac{1}{100}$ Morphia $\frac{1}{6}$	10 mins.	$\frac{1}{2}$	2	No vomiting
2	M	42	Excision of upper jaw	Ditto	10 mins.	1	$3\frac{1}{2}$	Patient came round quickly, but died five hours after the operation from causes unconnected with the anæsthetic.
3	F	39	Hysterectomy for chorion epithelioma	Ditto	About 12 mins.	$1\frac{1}{4}$	3	No vomiting; wound healed slowly
4	F	55	Ileocolostomy for obstruction	I.M.H. et A. gr. $\frac{1}{4}$ & $\frac{1}{100}$	5 to 6 mins.	1	2	No vomiting
5	F	23	Thyroidectomy for exophthalmic goitre	Ditto	5 mins.	1 hr. 10 mins.	$2\frac{1}{4}$	Vomited a little blood swallowed from stitch through tongue
6	F	57	Strangulated inguinal hernia	None	4 to 5 mins.	$\frac{3}{4}$	2	No vomiting
7	F	71	Colostomy for obstruction	None	5 to 6 mins.	$\frac{3}{4}$	$1\frac{1}{2}$	No vomiting
*8	F	55	Extensive resection of colon	I.M.H. et A. gr. $\frac{1}{4}$ & $\frac{1}{100}$	5 mins.	1 hr. 20 mins.	$1\frac{3}{4}$	Vomited twice

* Same patient as Case 4, at her own express wish.

REFERENCES.

(1) Mun. Med. Wochenshrift, 1909, Nr. 46.
(2) Verhandlung der Deutsch. Gesell, Vierter Cong. fur Chir., 1911.
(3) Zeitsch. fur Chir., 1910, Nr. 7.
(4) B.M.J., October 21st, 1911.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

The Biennial Dinner, 1912.

DEAR MR. EDITOR,—The list of acceptances appended to this letter includes all the names which I have received up to this evening, and a very satisfactory list it is. I should be very much obliged if those who intend to come, and who have not yet filled in and returned to me the invitation form sent them, would do so *as soon as possible*, so that in the next issue of the GAZETTE, *on June 8th*, there may be a list twice as long as in this number. The publication of the names is an important element in the success of the dinner, in that nothing is more likely to induce a doubting man to come than to see that some of his old friends have decided to do so. Therefore, please, acceptances are wanted *now*, for there are only two more issues of the GAZETTE before the date of the dinner, and in the latter issue will appear the final list of acceptances. It is gratifying to record already the names of one or two men whom we have not seen at Guy's of recent years, owing to their absence abroad. If anyone knows of others who are likely to be here at the time of the dinner, I hope he will send me names and addresses, so that invitations may be sent to them. The Committee look forward this year to seeing many men who have not hitherto attended these dinners. If those who are coming will send post cards to their friends, urging them to do so also, we are bound to have a good evening. One Vice-Chairman has sent me a list of no less than thirty men who are coming, and if the committee continue to be aided in this energetic manner, there will be a record dinner, and there will be none but will find "old friends to converse with."

I should like to have the names of *all guests*, for inasmuch as they must be Guy's men, their names are equally wanted for publication. About a week before the dinner a list of all who have signified their intention to be present, will be sent to each individual who has accepted, so that he may mark on that list the names of those near whom he would like to sit, and then return it to me. The tables will be arranged in accordance with these replies.

For the benefit of those who have mislaid their invitation form, a duplicate for use is to be found in the advertisement columns of this GAZETTE, or a second invitation form will be sent immediately on application to me.—I am, Sir, yours sincerely,

JOHN FAWCETT.

66, Wimpole Street W.
May 22nd, 1912.

Air, S. H. C.
Alcock, A.
Allport, A.
Armstrong, R. S.
Aubrey, H. P.

Ball, M.
*Barrs, A. G.
Beale, E. C.
Bean, C. E.
Beard, F.
*Berry, J. B.
Bethell, H. W.
Bevan, R.
Billing, E.
Black, G.
Blatherwick, H.
Bosworth, J. R.
*Bradbury, J. C. O.
Brailey, W. A.
*Branfoot, Sir A.
Brock, E. H.
Brook, F. W.
Brookhouse, C. T.
Brookhouse, H. O.
Brown, T.
*Brownfield, H. M.
Brydin, R. J.
Burghard, F. F.
Buxton, A. St. Clair

Cardin, H.
*Clarke, A. E.
Clarke, H. M.
*Cloud, F. H. L.
Cock, F. W.
Cock, John
*Collins, M. A.
Coombe, T. S.
Cooper, H.
Cooper, J. S.
Coulson, J. E.
*Counsell, H. E.
Craig, M.
*Crofts, A. D.
Curtis, P. J.

Daldy, A. M.
Dalton, A. J.
Daniell, G. W.
Davies-Colley, R.
Davy, H.
Digby, K. H.
Dixon, John
Donnell, J. H.
Durham, F.
Durham, H. E.

Elliston, G. S.
Elphinstone, R.
Ewart, J. H.
Eyre, J.

Fawcett, J.
Fisher W. H.
Flower, N.
Floyd, S. G.
Floyer, W.
Forsyth, D.
Fremantle, F. E.
French, H.
Frith, W. S.

Gardner, A. L.
Gibson, J. H.
Glendining, B.
Goble, E. W.
Goldie, E. G.
Golding-Bird, C. H.
Goodall, E.
Goodhart, Sir James
Green, A.

Hammond, J. A. B.
Hancock, E. D.
Hardenberg, E. F. H.
Hay, W. A. E.
Henson, W. J.
Hertz, A. F.
*Higgens, C.
*Hind, G. R.
Hind, Wheelton.
Holman, H. J.
Howell, T. A. J.

Iredell, C. E.

*Jones, C. E. M.
Jones, J. H.

*Lansdown, R. G. P.
Latimer, H. A.
Lee, H.
Leeming, A.
Leeming, A. Norman
Le Riche, P. J.
Lees, A. E.
Lidderdale, F. J.
Lindsay, W. J.
Lister, T. D.
Little, E. Graham
Lucey, H.

Macalister, G. H. K.
McGavin, L.
Maggs, W. A.
Malleson, H. C.
Mann, H. C.
Mansell, E. R.
Matcham, A.
Mawby, F. W.
May, P. M.
Mollison, W. M.
Moore, W. Hodgson
Mullally, G. T.
Murphy, Sir Shirley
Muspratt, C. D.
Mutch, N.

Newnham, W. H. C.
Nichols, R. T.
*Nicholson, C. R.

*Odgers, P. N. B.
Ormond, A. W.
Owen, S. Walshe

Paget, P.
Partridge, A. A. H.
Payne, J. L.
Payne, O. V.
Penny, E.
Perkins, G. Steele
Perry, Sir Cooper
Peters, E. A.

Pinching, C.
Pitt, G. N.
Pollard, G. S.
Pollard, J. McF.
Poole, T. Brice
*Price, P. S.

Ralph, C. H. D.
Randall, P. N.
Rippmann, C. H.
Roberts, E. C.
Roberts, J. Lloyd
*Robinson, W. E.
Roper, A.
Routh, C. F.
Routley, E. W.
Rouw, R. W.
Rowland, E. W. S.
*Rowlands, R.
Rowlands, R. P.
Ryffel, J. H.

*Salter, C. E.
Sandison, A.
*Saner, J. G.
Savage, Sir G. H.
*Scott, B.
Sells, H. T.
Sharp, N. A. D.
Shaw, L. E.
*Sheen, W.
*Shillitoe, A.
Shipway, F. E.
Smith, D. Lloyd
Smith, G. B.
Smith, H. J. Milbank
Smith, J. Cameron
Smith, Wilberforce
*Spon, H. J.
Spurrell, C.
Stebbing, G. F.
Stephens, Lockhart
Stevens, T. G.
Steward, F. J.
Stewart, H. M.
Still, G. F.
Symonds, C. J.

Tanner, J.
Targett, J. H.
Taylor, W. Bramley
Thomas, T. P.
Thompson, R.
Ticehurst, G. A.
*Turner, J. Sidney

Uhthoff, J. C.

Vandermin, H. F.
Vicars, F.

Wakefield, C. F.
Warner, P.
Watson, D. P.
Way, M.
White, W. Hale
Wills, W. K.
Wilson, F. Wallace
Wingent, R. M.
Wright, W. Holland

Young, F. C.
Young, J.
Younger, E. G.

* Vice-Chairmen,

Also Mr. H. Cosmo Bonsor, Viscount Goschen, Colonel F. A. Lucas, Mr. F. H. Norman, Mr. F. P. Whitbread, and the Editor of the GUY'S GAZETTE.

National Insurance Act.

DEAR SIR,—Though one reads with great interest the unique views which you, from time to time, give vent to regarding the Insurance Act, and the attitude of the British Medical Association thereto, would it be asking too much of you to make once again quite clear that these are *not* the views of the majority of Guy's men.

As you are well aware, the GAZETTE has a considerable circulation among old Guy's men, and on three occasions now I have been asked by readers outside the Institution why a large teaching hospital like ours holds such views. At first I did not take these interrogations seriously, but two, at least, assured me that they thought that your notes in Passim reflected the opinions of the students in general. Trusting this suggestion will meet with your approval,—Yours obediently,

LEO. MANDEL.

Guy's Hospital,
May 15th, 1912.

[This letter is referred to in Passim.—ED., G.H.G.]

SIR,—I should deem it a favour were you to allow me a small space wherein to comment upon your remarks in the last number of the GAZETTE upon the attitude of the medical profession towards the Insurance Act. The gist of these remarks appears to be a desire to draw attention to the militancy of the British Medical Association as a Trade Union, coupled with an effort, as far as possible, to disconnect the Insurance Act from any responsibility for this new development. You speak of the threatened strike as "not against a proposed change in the existing relations with patients, but against those existing relations themselves." This is hardly accurate. It is true that in the case of a certain number of patients there will be no change in existing relations under the Act, but this is not the case for the several million who are now treated privately, and who will then come under the contract system. The strike is, therefore, more against a proposed change in existing relations with patients than against the relations which already exist.

You next speak of an "attempt to destroy a system which the profession itself has built up." To speak of the present contract system as one built up by the profession itself is hardly the way I should speak of it; it has truly been allowed to grow owing to the indifference of, and lack of cohesion amongst, medical men, but be this as it may, in what way is there or has there been any proposal to destroy this system? Do you consider a wide public medical service organised by the profession a destruction of this pet system, this darling of the medical profession's own generation? If so, I can only say that you will stand pretty much alone in your uncompromising Conservatism.

You then speak of "picketing," and say that it "would call forth indignant protest in the case of an organisation of manual labourers." From whom? Judging by your remarks it might possibly do so from the ultra Tory GUY'S GAZETTE, but if I remember rightly "picketing" has been tenderly legalized by a liberty-loving Liberal Government.

Finally, you compare the threatened medical strike with the late coal strike. There is, however, this difference. The miners ceased to work; no coal was raised; and the community was threatened with starvation. Medical men will not cease to work; no one will go without treatment, and the community will not be threatened with disaster; a difference fairly clear to everyone. The real truth is that dislike to the medical proposals in the Insurance Act has spread into hostility to the whole present contract system; that opposition to the proposals in the Act has generated a strike against these same proposals wherever they already exist; and that a latent dislike of an existing state of things has been changed into active hostility by the threatened extension and perpetuation of this state of things. One may tolerate

for years one varicose vein, but when this vein becomes multiplied by six it is time to think of a remedy. It is in order to help my younger colleagues in the application of the remedy that I have, during the last three months, for the first time become a member of the British Medical Association. —I am, Sir, Your obedient servant,

107, Castle Hill, Reading. E. G. MARCH.

May, 1912.

[We have been accused of many things, but never before of Conservatism! Is not our correspondent confusing opposition to the National Insurance Act with the far wider scheme hidden in the B.M.A.'s latest pledge?—ED., G.H.G.]

SIR,—The rôle of a prophet crying in the wilderness is never a popular one, and your Passim of the last issue is likely to bring you more abuse than applause. On that account I am the more inclined to congratulate you on the broad-minded attitude you have taken up with regard to the policy of the B.M.A.

To anyone acquainted with politics it is, as you point out, distinctly amusing to watch the exploitation of the profession by a political party which urges upon it methods essentially identical with those which, when adopted by other classes under other circumstances, call down that party's most vehement disapprobation.

Apart, however, from that aspect of the question, I think there are many younger members of the profession who consider this semi-coercive policy of pledges to be one with which it is impossible for them to agree. There is a wide difference in outlook between those on the threshold of practice and those immersed in it, and it is unreasonable to expect the former to submit themselves, both intellectually and financially, to the latter. Some of us are by no means convinced of the inborn iniquity of Mr. Lloyd George, nor of the injustice of the Insurance Act, in spite of the many fulminations against them. Such being the case, it is obvious that we must bide our time and refrain from pledging ourselves to a course of action for which we have as yet seen no sufficient justification, and which we feel would deprive us of our individual liberty to an extent greater than we can conscientiously approve.

I would suggest, therefore, to those who remain unpledged the policy of an open mind, and a refusal to be coerced.—Yours, etc.,

"NON-COMMITTAL."

SIR,—Your remarks in Passim, criticising the British Medical Association policy, are certainly not of the tone which Guy's men have been accustomed to. The GAZETTE was always free from criticisms, both offensive and satirical, which you have thought fit to launch against the British Medical Association. In my day it was not the custom for an Editor of the GAZETTE to criticize the actions of men of such standing as the Council of the British Medical Association contains; in fact, it would have been looked upon as bad manners to do so; and you, Sir, with all your sarcasm and criticism, can hardly expect to have the knowledge and experience of the men who are now handling this critical situation. You do not state what experience you have had, if any, of general and club practice, and yet you complain that the British Medical Association is adopting combine methods; surely it is obvious such methods would never have been suggested unless there was a crying necessity for them.

Have you an alternative policy to save us from Trades Unionism? From the assurance of your criticism one would, at least, expect that you had some solution to offer, and thus end the present crisis.

You further tell us that the British Medical Association has instituted a system of "picketing" under the guise of professional ostracism, and why not? If a member of the profession "undersells" and behaves in a manner unbecoming to gentlemen, most certainly "social and professional ostracism" is his just reward.

I am not certain that many of your senior readers are prepared to be lectured in Passim on a subject which endangers the very existence of some and harms the many.

No good can come from such criticisms as you have offered; in fact, much harm may result, as it might influence some of the newly-fledged G.P.'s, who have yet to tread the thorny paths of General Practice.—I am, yours, etc.,

"COTSWOLD."

[We must confess that the eminence of the Council of the B.M.A. does not awe us into a belief in their political infallibility any more than "Cotswold's" arguments convince us of our own iniquity. We admit to a conviction that age shares with youth the right to criticize, but if "Cotswold" is not "prepared to be lectured in Passim," is it fair for "Cotswold" to lecture us?—Ed., G.H.G.]

Change of Address.

N. S. Carruthers, M.R.C.S., L.R.C.P., from Wing Lodge, Sherborne, to Cressage, near Shrewsbury.

M. Mintern Munden, from Guy's Hospital to Wickham Grange, Chalford, Glos.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

Chronic Appendicitis.

CLINICAL LECTURE BY F. J. STEWARD.

The vermiform appendix, besides being the subject of acute attacks of inflammation with which you are familiar and are constantly hearing so much about, is also responsible for a great deal of insidious mischief, which may be called chronic appendicitis, and which is well worthy of more attention than it at present receives. For instance, if one enquires into the history of patients who are suffering from acute appendicitis, one is frequently struck with the fact that many of them have previously suffered from frequent attacks of indigestion, abdominal pain, and so forth. Again, it frequently happens that after a patient has had his appendix removed his health generally improves in such a striking manner that one is forced to the conclusion that he must have previously been the subject of some chronic process which had not been recognised.

I will refer to an actual case in illustration of what I mean. The patient was the sister of an old Guy's man, who had for years been in indifferent health; she suffered a good deal from headaches, her digestion was easily upset, she had a poor appetite, she was lacking in energy, and often she had attacks of slight abdominal pain. As these symptoms were not in any way severe, however, and did not lay her up, she had never consulted a doctor about them. But one day she had an attack of abdominal pain associated with vomiting, much more severe than anything she had had previously. Her doctor, called in for the first time, did not doubt that she had a mild attack of appendicitis. Subsequently I saw her, and removed her appendix. From that time, now ten years since, her health has been quite different; she has had no more attacks of pain, she is much heavier, she has a normal appetite and digestion, and seldom has a headache.

In many of these cases the patients will speak of having been very liable to "bilious attacks," and frequently the onset of acute appendicitis will be mistaken for a bilious attack.

A few months ago I operated upon a little girl who was a patient of Dr. Tilbury, and who had a gangrenous appendix with diffuse peritonitis. She had had so many of these "bilious attacks," as the mother called them, that she did not call Dr. Tilbury in until she seemed to have a worse attack than usual. Consequently valuable time was lost, and the appendix was gangrenous and perforated when she was first seen.

Now, in order to get to close quarters with this condition, what are the symptoms produced by chronic appendicitis? Or what symptoms would lead you to think chronic appendicitis was present? In order to illustrate these, and the morbid anatomy of the condition, I shall describe a series of cases, and comment on them as I go along.

With regard to the symptoms, in the main, as in any other disease in which there are acute and chronic forms, the difference is one of degree only, since their causation is the same in each case.

Now appendicitis, whether acute or chronic, is primarily an infective disease, so that certain toxic symptoms are present in each variety, but the toxic symptoms vary a good deal according to the virulence of the poison and the dose absorbed. This will become clearer on comparison with another infective process such as tonsillitis, which also as you know may be acute or chronic. In acute tonsillitis, considerable doses of poison are rapidly absorbed, so that the patient is acutely toxic with rapid pulse, pyrexia, pains in various parts, general malaise, etc. In chronic tonsillitis very small doses of poison are absorbed, and these are spread over long periods, but will nevertheless cause general ill-health, loss of appetite, dyspepsia, headaches, and so forth. The toxic symptoms caused by acute and chronic appendicitis are exactly similar to those of tonsillitis, and this explains a point that you will notice comes out in the accounts of some of the cases, namely, that although the symptoms may be well marked and may have lasted for some considerable time, the changes found in the appendix may be comparatively small in degree; the infective process being quite slight as regards its effect on the appendix, but still sufficient to cause marked depreciation of general health owing to small doses of poison being constantly absorbed.

In addition, there are other symptoms due to obstruction. Reference to the anatomy of the appendix will enable you to see why this is. The appendix is a comparatively long tube, with hardly any lumen, so that a very little swelling, due to inflammation, suffices to block it, and this blocking, causes distension and consequent attacks of pain. That is the early and simplest type of chronic appendicitis. To illustrate that, I will tell you about two cases, details of which I have here. The first case was that of a lady who was sent to me by Dr. Maidlow, an old Guy's man, last year, on account of attacks of pain high up in the abdomen. She had had

these attacks for two years. The pain came on suddenly, was sharp in character, lasting from a few minutes to half an hour, and it was not directly affected by food or exercise. Until six weeks before I saw her, the pain was always in the epigastric region, but since then it seemed to take a lower position, and the attacks were becoming more frequent. When I saw her she was complaining also of a constant ache. Her appetite was very poor, whereas it used to be good; she had lost 10 lbs. in weight during the last few months, and she was always tired and devoid of energy. On examining her immediately after one of her attacks Dr. Maidlow discovered tenderness in the appendix region, and when I examined her I also found marked tenderness on deep palpation. Subsequently I removed the appendix. There was apparently not much the matter with it, it was slightly thickened, but there was no sign of peritoneal inflammation nor any obvious obstruction, except that produced by thickening and swelling of the mucous membrane. Since the operation there has been a complete change. She has had no more pain, has a healthy appetite, and has returned to her original state of health.

Another somewhat similar case is that of an old Guy's man, whom I operated upon a year ago. His history extended over three years, and the symptoms consisted of attacks of abdominal distension and flatulence, lasting two or three days, and followed usually by pain in the right iliac region. The attacks lasted two or three days and then passed off. They were repeated at intervals of about a week, so he had had many attacks during those three years. He was never laid up by his condition, and was always able to do his work. He says in a recent letter: "Since the operation I have had no attack; my general health has quite returned to its former state, which was good. I increased in weight for the first four months, but have now come back to my normal, which is 13 stone 7 lbs. The increase in weight was 11 lbs." He adds a note, which is very interesting to me because I did not think the toxic symptoms of the disease had had the effect upon him which they do on so many people. The note is this: "Although not connected with abdominal symptoms directly I should like to mention a general irritability of temper and mental depression it caused, rendering the daily work a burden, which, I am pleased to say, has totally disappeared."

That is exactly what I have come across in many instances; a toxæmia which puts these people just sufficiently below par to make their ordinary life's work more or less a burden to them.

Let us follow this up a little further. Supposing the process goes on, you may get stagnation in the appendix, owing to obstruction, and the consequent formation of those enteroliths, which are so common. Again, ulceration takes place in certain cases, and the ulceration may heal and cause stricture. I have operated on a number of cases in which there was well-marked stricture. The first case I described to you was one in point. Her appendix had a stricture and beyond it a large bulbous extremity, which was full of clear mucus. It was no doubt due to previous ulceration, probably caused by the passage of an enterolith, yet she had never had an acute attack. As the process extends, it will eventually reach the peritoneal surface and give rise to localised peritonitis, resulting in adhesions. Here are some cases which illustrate that. Mrs. S. had for years been in poor health, had frequent headaches, suffered from weak digestion, and was never able to eat her breakfast. At various times before I saw her in June, 1911, she had had slight attacks of abdominal pain, lasting about 24 hours, but they were unassociated with sickness or constipation. She was found to have deep tenderness over the region of the appendix, and was seen by Dr. Fawcett and other physicians who advised operation. At the operation marked changes were found, the appendix being matted down by adhesions to the back of the cæcum. The removal of the appendix, again, produced a striking effect on the general health, for not only has the pain entirely ceased, but a stone in weight was put on in five months although she is only a small woman. When I asked her recently if she had a better appetite in the mornings now, she said she would cry if she had to miss her breakfast. Another case is that of a lady I operated upon recently. She had suffered frequently from attacks of abdominal pain in the epigastric region; these usually came on at night, were frequently associated with vomiting, and they were attributed to errors in diet or biliousness. Until she had had many attacks she never consulted her doctor about the condition. Eventually, after a more severe attack than usual, she was found by her medical attendant, Dr. Stewart, of Barnett, to have well-marked tenderness in the appendix region. He sent her to see Dr. Hertz, who confirmed and advised operation. At the operation the appendix was found matted down to the back of the cæcum by a great many

adhesions, and the appendix itself was acutely kinked. I had a letter from this lady last night, in which she said she was in perfect health, and was better than for years, and had had no more attacks.

The process may, however, go further and cause a chronic abscess. I have seen two cases in which an abscess was present without the patient having had acute appendicitis. One of them was a patient in Miriam ward some years ago. She was a middle-aged woman, and she had suffered for many years from indigestion, and for about five years she frequently had had pain in the lower part of the abdomen, but it had never been severe enough to cause her to keep to her bed. She was found to have a hard, slightly tender swelling in the right iliac region. She had no rise of temperature, her pulse rate was normal, and in every other respect she was normal. I explored this swelling, and found it to consist of an extremely dense abscess wall, formed by adhesions between the omentum and cæcum and containing a small quantity of thick pus, with the appendix opening into it. I was able to remove the whole mass complete with the appendix. The patient did well, and some months afterwards had had no further indigestion or attacks of pain.

The morbid anatomy of chronic appendicitis is thus practically the same as that of the acute disease, except that, as in the symptoms, there is a difference in degree, the changes taking place slowly in one case, rapidly in the other.

I have one more case to describe to you, which is in some ways, perhaps, more striking than any of the others, and it is an instance of a condition which I had not come across at all before, but which I think has a very important bearing on the subject of acute appendicitis. It, moreover, makes the analogy with acute appendicitis complete. It is a chronic case in which the appendix was gangrenous.

The patient was an old Guy's man, and he came to me on December 1st last. He told me that for five years he had had abdominal attacks. They commenced with malaise, irritability, and furred tongue, and this was followed by what he described as a "windy feeling" in the epigastrium. After some hours this was followed by pain round the umbilicus and occasionally vomiting. The whole attack lasted, on an average, about 24 hours. He also said that even between the attacks he did not feel really well, and he had gradually been losing weight. He looked ill, and much changed since I last saw him ten years before, and he was a bad colour. He had marked tenderness, rather below the usual position, just above Poupart's ligament on the right side. I told him I thought his trouble was due to his appendix, and I advised him to have it removed. At the operation a few days later, the appendix was found wrapped up in the edge of the omentum; and on gently undoing it the appendix gave way, the wall being gangrenous, grey in colour, and as soft as wet blotting paper. I had never seen that condition before, and it makes the series of possible changes in chronic appendicitis complete. It seems to me, moreover, to have a very important bearing in another way, because it may possibly explain some of those very acute cases of appendicitis in which practically the first symptom is perforation. If this man, instead of being operated on, had kept about, I think his appendix would undoubtedly have suddenly perforated, and caused diffuse peritonitis.

You will have gathered from the accounts of the cases I have described, that there were, in the first place, general symptoms due to the infective process, such as a general depreciation of health, more or less dyspepsia, loss of appetite, and frequently loss of weight; and added to these were the symptoms produced by obstruction in the appendix itself: attacks of pain, usually felt in the region of the epigastrium, and referred to the stomach. This condition is, accordingly, frequently termed dyspepsia. It is only in later stages, especially when the peritoneum becomes involved, and there is localised peritonitis, that pain becomes referred to the appendix region. Thirdly, you will have noted that marked changes may occur in the appendix without anything like an ordinary acute attack of appendicitis.

Now we come to the important question of diagnosis, which I can only refer to very briefly. Supposing you see a patient who complains of toxic symptoms associated with attacks of abdominal pain such as I have described to you, when is it justifiable to diagnose the condition causing the pain as chronic appendicitis, and to remove the appendix? The answer to the question clearly is—when there is persistent tenderness in the region of the appendix. There are a number of conditions which may cause right-sided attacks of abdominal pain, and which must, of course, be borne in mind—for instance (1) gallstones, (2) duodenal ulcer, (3) kidney conditions, and in women pelvic conditions, salpingitis, ovaritis, etc. Sometimes those causes overlap as regards situation of the pain and tenderness.

I have operated upon one patient who had chronic appendicitis, and who was thought by

several physicians to have duodenal ulcer; indeed, he had had two periods of treatment for duodenal ulcer. The pain and tenderness were usually above the umbilicus; but once when I examined him the tenderness was comparatively low down, lower than it would be in ordinary duodenal ulcer; nor were the symptoms quite the usual ones for that. He had a long appendix, which ran up the inner side of the cæcum, and reached to the gall-bladder. In such a case you can easily understand the confusion between appendicitis, duodenal ulcer, and even gall stones. I operated on another patient, who I thought had gall-stones, but was surprised to find that the gall-bladder was quite normal. But I found the appendix acutely kinked, and matted down by adhesions, and the patient's symptoms were quite relieved by its removal. The one sign that I ask you to remember as the most important from the point of view of diagnosis is the tenderness.

In each of the cases I have described to-day, careful palpation over the appendix has elicited definite tenderness, and sometimes the patient has said that pressure over the appendix has produced the epigastric pain from which he suffered. Given such deep tenderness on palpation, I think you are justified in diagnosing chronic appendicitis and proceding to remove the appendix. I have gone on these lines for a number of years now, and never once have I removed an appendix without the patient having been benefited thereby. On the other hand, I have seen a good many patients who have had symptoms similar to these, which I could not distinguish from them, and which may have been due to chronic appendicitis, yet they had no tenderness whatever on palpation. Such cases I have left severely alone. Having seen a patient in this condition, or one who gives a history of "bilious attacks," or attacks of indigestion, possibly with vomiting, and having found no tenderness on examination, the question arises as to what is the best thing to do. In order to make certain whether these attacks are due to chronic appendicitis or not, I think you should make a careful examination immediately after or during an actual attack. That should settle the point, and, on several occasions, has been most useful, the appendix having been found distended and tender. In one case I thought I felt the appendix during an attack of pain, and the subsequent course of events confirmed this. It was a case in which the appendix was converted into a mucocele, which became distended during the attacks.

Having definitely diagnosed chronic appendicitis, as the risk is so slight, I do not think there can be any reasonable doubt that the proper treatment is to remove the appendix. It will generally be found in one of the conditions I have described to you, and the removal of the organ is usually followed by satisfactory results.

Appointments.

Naval and Military.

Fleet-Surgeon M. P. Jones,, R.N. to the *Racer*, additional for Royal Naval College.

Staff-Surgeon R. W. B. Hall, R.N., to H.M.S. *Active*, Home Fleet.

Surgeon R. Willan, R.N., to the *Vivid*, additional for Plymouth Hospital and as Instructor to Sick Berth Staff.

Staff-Surgeon J. Reed is promoted to be Fleet-Surgeon, dated 13th May, 1912.

ROYAL NAVAL VOLUNTEER RESERVE.—Thomas Turner, M.B. to be Surgeon, 24th April 1912.

Lieut.-Colonel J. V. Salvage, M.D., R.A.M.C., retires on retired pay, May 15th, 1912.

Major H. P. W. Barrow, R.A.M.C., has taken up duty as Sanitary Officer, Jamaica, and in charge Military Hospital, Up. Park Camp.

Major E. J. O'Meara, I.M.S., Civil Surgeon, Naini Tal, has been detailed for special duty on the Staff of the Lieut.-Governor of Bengal.

Lieut.-Colonel E. C. Hare, I.M.S., has been selected as Sanitary Commissioner of the Province Orissa and Behar.

Civil.

T. G. Stevens, M.D., B.S., F.R.C.S. Eng., M.R.C.P. Lon., appointed Obstetric Surgeon, with charge of Out-Patients, to St. Mary's Hospital, Paddington.

Papers by Guy's Men.

Captain C. W. Bowle, R.A.M.C.: A Regimental Self-Cooking Equipment.—*Journal of R.A.M.C.*, May, 1912.

Cameron, H. C., M.A., M.D., M.R.C.P.: Lectures I. and II., On Some Common Disorders of Nutrition in Infancy.—*Clinical Journal*, 15th and 22nd May, 1912.

Eyre, J. W. H., M.D., M.S., D.H.P.: The Hunterian Lecture on Tuberculosis of the Conjunctiva; Its Etiology, Pathology and Diagnosis.—*Lancet*, 18th May, 1912.

Forsyth, David, M.D., D.Sc., F.R.C.P.: A Post-Graduate Lecture on Coma and its Differential Diagnosis.—*British Medical Journal*, 11th May, 1912.

Minett, E. P., M.D., D.P.H., D.T.M. & H.: Three Unusual Cases of Anthrax Infection in Man, in British Guiana.—*British Guiana Medical Annual*, 1912.

Mutch, N., M.A., M.B., B.C.: A Short Quantitative Study of Histozym, A Tissue Ferment.—*Journal of Physiology*, Vol. XLIV., No. 3.

Starling, E. H., M.D., and another: The Influence of Variations in Temperature and Blood Pressure on the Performance of the Mammalian Heart.—*Ibid.*

A Few Therapeutic Points.

An Address delivered before the Woolwich Medico-Chirurgical Society on Tuesday, April 9th, 1912, by Herbert French.

(*Continued from page 197.*)

Thyroid Extract in the Relief of some Cases of Tic Douloureux.

One is familiar enough with the changes in intellect that occur in myxœdema and also with the more generalised subjective sensations such as acroparæsthesia and the like which are apt to occur in stout women in middle life, who, without being typical myxœdema cases, are nevertheless much benefited by the administration of thyroid extract. Hitherto it has not apparently occurred to the profession generally that cases in which the subjective nerve symptoms appear at first sight to be more definitely local may also be dependent upon what has been termed "hypothyroidism," and that the administration of suitable small doses of thyroid extract might relieve or even cure them. I should like to refer particularly to the extremely beneficial results that have accrued in some cases of that most frightful malady tic douloureux, in the hope that the treatment may be tried more widely. I think it improbable that tic douloureux has the same causation in all cases, and very likely only a small percentage of the patients will receive the relief that it gave in at least two cases that I have watched. So few things, however, are known to benefit these patients radically that even if only a patient here and there can be relieved of the excruciating paroxysms of lancinating pain to which the disease subjects them, something will have been achieved.

I will not burden you with details here, but I should like to quote one of the cases as an example: The patient was a married lady in well-to-do circumstances, 55 years of age. Though no great eater she had become exceedingly stout. Physically she became fatigued from comparatively slight exertion; mentally she was keen and active. She began to have twinges of pain in the left infra-orbital nerve, and these twinges rapidly developed into typical and very severe tic douloureux involving every branch of the second division of the left fifth nerve. The attacks were to some extent periodic, and for six weeks or two months she might be quite free though always on tenter-hooks lest the pain should return. Then a few warning twinges would develop, and within a day or two she would be in the grip of an attack lasting for three weeks or more, during the whole of which time she was confined to a darkened room, seeing nobody, all extraneous sounds being reduced to a minimum by various devices, food being partaken of with only the greatest difficulty, some days not at all, the only relief being obtained by an old servant happening to have the knack of holding the patient's head and left cheek firmly gripped between her hands in such a way as to exert just that amount of pressure over the painful area which the patient found to be the best for mitigating the pangs and darts of pain to which she was subject at irregular, but all too short intervals, night and day. Sleep was interfered with, general nutrition suffered, and, what is not surprising, the mind became obsessed by a terror of what was to happen the next minute, so that even in the intervals between the attacks, when there was relative ease for a few weeks, the patient was unable to enjoy life properly because she never knew when any particular movement she might make might not bring on an attack. The teeth were all false, no stump remaining in the mouth; no ocular cause could be discovered for the paroxysms. There was no disease of the antrum of Highmore or of any of the accessary nasal sinuses. All the ordinary remedies were tried in vain, and the patient was at her wit's end to know what was to be done next. Owing to the several branches of the second division of the fifth nerve all being involved it did not seem likely that Dr. Wilfred Harris's alcohol injections would be effectual; or at any rate to be effectual the injections would have had to have been made at several foramina or into the Gasserian ganglion, for the case was not like one in which the pains were restricted to a single branch such as the infra-orbital. Nevertheless, the question of surgical assistance of one kind or another was discussed several times, and it would not have been long before it would have been resorted to but for the idea of trying thyroid extract in small doses presenting itself. The patient had by this time been a martyr to an extreme degree of tic douloureux for over four years, and the attacks were getting both more frequent and more severe. The thyroid extract was given in the form of the dried powder in 1 grain doses three times a day, this being gradually increased to 1½ grains, then to 2 grains, and even to 3 grains three times a day. The patient did not herself know what remedy she was having. She was at the tail end of an attack when it was started. One or two mild twinges of pain occurred during

the following days and thereafter came a period of quiescence. It was feared that this was only one of the ordinary remissions however; another attack was expected in a few weeks. Six weeks went by, eight weeks, three months; there was a very mild twinge in the affected region about this time, and the patient became terror-stricken lest she was going to suffer from another bout, but the twinge led to nothing further. Six months. nine months, a year, went by and still there was no return. The dose of thyroid extract was reduced to 1½ grains three times a day, and this has been continued with from that time until now. The patient is in the fourth year since her last attack of tic douloureux; her general condition is excellent, she is active both in body and mind, and quite rejuvenated so that she is again able to take up landscape painting and other occupations which used to be a pleasure to her, but which during the years she was suffering from tic douloureux had to be given up.

It may be urged by the sceptical that this was a case of *post hoc* and not *propter hoc*. If so, it will be very difficult indeed to persuade the patient or her medical attendant that this was the case. Even if only one case of tic douloureux in a hundred were similarly relieved by thyroid medication, the boon conferred on that one case is inestimable. A life of fearful torture during the paroxysms and of constant dread and terror at the times when the pains are in abeyance is restored to its former happiness; and to judge from this case and also from another similar one, the notes of which I will not burden you with, though I would say that the relief was quite as marked, the benefit seems to be permanent, though one would not have the courage to advise leaving off the thyroid treatment yet, or indeed at all.

I imagine, however, that tic douloureux is only a symptom, and that it has many different underlying causes; if this is so, then the treatment of all cases cannot be precisely alike, and whereas some patients may be benefited much by one line of treatment, others may not be benefited by it at all, but require something different. This being so, thyroid medication will very likely fail in many cases. Nevertheless I am convinced that at least some examples of tic douloureux are due to hypothyroidism, and that, therefore, it is well worth while giving thyroid medication a trial when the disease has baffled other more ordinary lines of treatment. I would also emphasize the need of trying all kinds of doses before the remedy is discarded in any case in which relief is not immediate. There are few drugs in connection with which dosage is of more importance than is the case with thyroid extract. Some patients suffering from hypothyroidism do well on doses expressed in quite small fractions of a grain, and badly when grain doses or more are administered. Others do better on doses such as those given above. It is better to begin with small doses, such as 1/6th grain twice a day, and to feel one's way carefully towards the larger ones, than to give the higher doses first.

Milk and Tuberculous Affections.

I am a firm believer in the doctrine taught by Dr. Nathan Raw that clinically and pathologically there are two entirely distinct types of tuberculous lesion in man—which for brevity may be labelled the human and the bovine respectively. The bacilli may have been identical originally, but the effect of their passage through man and cow respectively is to make them produce lesions that are almost as much divided from one another, from a clinical point of view, as vaccinia is from smallpox. The essentially human type of tuberculosis in man is that which we all recognise by the unscientific but fairly definite term "pulmonary phthisis." People who die of phthisis have remarkably restricted tuberculous lesions—there are the lungs, and there may be the larynx and the bowel, but generally no other parts are involved by obviously tuberculous mischief, except, perhaps, in microscopical and usually terminal degree. Sometimes the genito-urinary tract is affected, though this is exceptional; but in phthisical cases one does not expect to find caseous glands, spinal caries, pulpy joints, meningitis, tuberculous peritonitis, lupus vulgaris, scrofulodermia, or generalised tuberculosis, which form the affections met with in the entirely separate bovine type of case. It is the rarest thing to see a case of phthisis pulmonalis develop tuberculous meningitis and general tuberculosis. It is almost as rare to find a patient who died of tuberculous meningitis and general tuberculosis to be suffering from tuberculous lung trouble other than the disseminated grey tubercles that occur throughout all the organs, the lungs included. There are, of course, cases in which both the human and the bovine types occur together. A case of phthisis is very apt to have the bovine tubercle superadded as the result of treatment with pints of tuberculous milk; but in the great majority of cases the two types are separate and easily seen to be distinct. What is less generally recognised is that the many cases of lamentably deformed spines and joints, swollen cervical glands, scarred necks, disfiguring lupus, and

the multitudes of deaths from tuberculous meningitis need not occur at all if only we could give our children unboiled milk that could be guaranteed free from tubercle bacilli. Unfortunately, the very reverse is the case—in country places as well as in town the great probability is that almost every child drinks milk containing tubercle bacilli every year. Many do so every month or week; for tubercle bacilli have been actually found in over 20 per cent. of samples taken at random from cans of milk arriving at the various big London railway termini. I feel very strongly indeed upon this point, for it is pitiable to see children running the risk they do when it could be prevented; but I am not going to labour this point further here. Very fortunately most children are able to digest tuberculous milk with impunity—nay, it may even be that the ingestion of it helps them to become immune to tuberculous affections generally. Nevertheless, there is one extremely important therapeutic point that I wish to make in connection with it, and that is that we ought to make very sure of the non-tuberculous nature of the milk we order before we prescribe large quantities of it unboiled in the treatment of any "delicacy" in a patient. It may seem almost incredible, but I have seen patients who have been sent to a Sanatorium on account of definite early phthisis treated there with three pints or more of unboiled milk each day from the Sanatorium's own cows, and develop bunches of big tuberculous glands in each side of the neck when there had been no trace of a large gland on either side before—the bovine type of tubercle superadded to the human actually as the result of treatment in a sanatorium. As a concrete instance of a similar kind, I may mention the case of a medical man who came to me one day in great alarm about himself, fearing, as he said "that he was developing acute Hodgkin's disease of all the glands in his neck." They were enlarged sufficiently to cause visible disfigurement, and they had been growing steadily bigger for some weeks. One's suspicion was aroused that they might be tuberculous, though glands of this nature do not arise primarily in adults very commonly. On being asked whether he had been taking any quantity of unboiled milk lately, he said "Why, yes; for the last four months I have been drinking a pint of fresh milk every morning to see if I could get any fatter." He lived in the country and got his milk from a clean dairy in the village. At first he would not hear of the milk being otherwise than of the very best. He prescribed it abundantly to his patients. He was persuaded, however, to go round and see the cows in the dairy. He did so, and at once picked out at least one seedy cow in the herd. He stopped taking any milk, and within a year the glands had all gone small again spontaneously. I see all sort of tuberculous lesions of a bovine type being treated by prolonged immobilisation, by excision, by tuberculin injections, and so forth, but I do not see enough of them treated by the stopping of the administration of all tuberculous milk. I even see them being accentuated by the administration of increased amounts of the same milk as before. It is possible to get milk from certain dairies from tuberculin tested cows, if one pays an increased price for it; but the only way to be sure that average London milk contains no living tubercle bacilli is to boil it. I do not mean bringing it to the simmer; but keeping it boiling in a saucepanful of boiling water for a quarter of an hour, and then allowing it to cool. It is not so good perhaps as unboiled milk, but it is preferable to bovine tuberculous lesions. Children do not like it at first, but soon get to prefer it to the other if only the "nasty skin" is removed from it by means of a strainer. Personally I have a similar objection, on the same grounds, both to cream and to butter, but clearly the number of tubercle bacilli likely to be ingested by a patient in these each day is very much smaller than is the case with milk. Some patients take several pints of milk a day, but few can take more than a few ounces of either cream or butter. Besides, cream floats and tubercle bacilli tend to sink so that they are relatively few in both cream and butter even when the latter come from tuberculous cows. However, I am bound to say I think good margarine is better than butter in this as well as in some other respects.

UROTROPINE IN CASES OF GALL STONES.

Urotropine is probably best known as a urinary antiseptic, that is to say, as a drug which helps in the cure of certain forms of pyuria due to micro-organisms affecting the urinary tracts. In these cases it acts best when the urine is strongly acid; to which end it is generally beneficial to prescribe it along with ten or more grains of acid sodium phosphate three or four times a day. It is less generally recognised that urotropine renders other secretions besides the urine a less congenial habitat for the multiplication of micro-organisms than they were before the drug was given. Thus it may be used when there are microbial infections in such organs as the pancreas and its ducts,

the salivary glands and their ducts, the liver and the bile ducts. It has also been proved to cause the cerebro-spinal fluid to be to some extent antiseptic. In each case, of course, the fluids in question are not rendered actually bactericidal; but they become of such a nature that micro-organisms multiply in them less fast than before, so that if the removal of micro-organisms by outflow from the ducts remains the same as before, the net result is a progressive diminution in the total number of organisms present; in the same way as we have described above in connection with the alimentary canal. It may not be apparent at once what connection this has with the treatment of gall stones, but there is a very real and important connection between the two. It has been demonstrated, I think amongst others by Dr. William Bain, that if one takes human gall stones, sterilises them by heat, and then when they are cold again introduces them with aseptic precautions into the gall-bladder of a dog, they will be found to have disappeared if one opens the dog's gall-bladder again a month afterwards. If a precisely similar gall stone is introduced in a precisely similar way into the gall-bladder of another dog, with this difference however, that a small dose of *bacillus coli communis* insufficient to produce suppuration but enough to cause catarrh is introduced at the same time, the gall stone in a month's time, instead of having disappeared, will be found to have grown larger. In other words, one of the most important points of distinction between conditions in which gall stones dissolve and those in which they form and increase is that of the absence or presence of infecting organisms in the gall-bladder. The *bacillus coli communis* is the most common offending organism in this respect; the typhoid bacillus is another; and very probably there are more besides. It is clear, however, that if one can render the bile passages relatively less congenial places for the organisms to multiply in, gall stones may not only cease to increase in size but may actually disappear. One difficulty is, of course, that the gall bladder does not fill with the bile coming directly from the liver, but only with the surplus bile which, coming down into the common duct, finds itself not yet required in the duodenum, so that it regurgitates into the cystic duct and stays in the gall bladder until it is wanted. It is possible to have gall stones in the gall bladder and for the cystic duct to be at the same time impervious, in which case it would be clearly impossible to have antiseptic bile passing up into the gall bladder to disinfect it. This, however, is a relatively uncommon state of affairs, and it will be found that other things being equal the giving of 10-grain doses of urotropine three or four times a day will in a considerable proportion of cases cause biliary catarrh to diminish rapidly and gall stones to cease to produce symptoms. Personally, I prefer to give the drug in powder form in a cachet. I believe it alters slowly when in solution, so that if it is given in a mixture the latter should be made up fresh and fresh every day or two. It is very difficult to say with certainty that gall stones once formed in man will actually disappear. It is, however, enough if they cease to trouble the patient. There are, of course, many cases in which surgical assistance is required for the removal of the stones, but even in these it is important to remember that unless the infection of the gall-bladder is cured also, fresh stones will form in place of those removed, so that even in these patients it is wise to continue with the urotropine treatment for a prolonged period. Other measures should be adopted at the same time, of course, and amongst these I believe the

Olive oil treatment

to be good. It is quite true that it was begun as the result of a fallacious experiment; for the reason why olive oil was prescribed in the treatment of gall stones was that biliary calculi suspended in a flask of olive oil can be seen to melt away gradually until they ultimately disappear completely in the course of months. In Nature it is clearly impossible to get the olive oil in the alimentary canal into direct contact with gall stones in the gall-bladder or bile ducts, and therefore this line of treatment has been scoffed at by many. In practice, however, it is found to be very beneficial, and I think that a possible explanation of this is that the giving of oil or any other fat arouses a need for the supply of more bile for its digestion. The result of this must be that there is a larger quantity of fluid flowing down the biliary passages than otherwise would be the case, and if one has an infection of a canal and can wash that canal out more frequently and more copiously the infection becomes progressively less until it may even be cured entirely. This is probably what happens when olive oil is given for the treatment of gall stones. Seeing, however, that if there is a constant supply of fat in the alimentary canal, there will be need for a constant flow of bile which will therefore come down the bile passages without passing up into the gall bladder to be stored there for a time, it would seem better on theoretical grounds to give the oil not after every

meal, or frequently, but rather once a day or even every other day. Some patients can take as much as two tablespoonfuls neat at a dose.

THE NEED OF GIVING DIGITALIS BOLDLY WHEN IT IS GIVEN AT ALL.

There is often a great deal of timidity in giving full doses of Tincture of Digitalis—fifteen minims or more three or even four times a day. This, I think, is a great mistake because it very frequently happens that hardly any effect is produced upon the heart by smaller doses such as ten minims or the like when the full doses will act marvellously well. This has been pointed out again and again, and my knowledge of the fact is due to Dr. Frederick Taylor. He has shown us repeatedly how patients who require digitalis need it in full doses, and that it can then be given with perfect safety as a rule, provided that it is administered by itself without other remedies at the same time. This is a most important therapeutic point. Tincture of Digitalis will often be taken continuously and well if it is given in plain water by itself when any attempt to combine it with nux vomica, caffeine or other similar cardiac remedy causes an upset of the patient's stomach at once. Occasionally, a particular brew of the drug leads to vomiting in a number of consecutive cases. The best remedy for this ill-effect is to get a fresh supply from some other source. There are many cases of mitral stenosis who can continue with 15 minims of tincture of digitalis, prescribed in plain chloroform water to the ounce, four times a day for weeks at a time, and who complain that they are not so well directly the remedy is stopped. I have verified this in scores of Out-Patient cases, and I have no hesitation in giving the full doses even to Out-Patients who can only be seen at intervals of a week or longer; for one finds that if any untoward effect is to be produced by it, it is nearly always ushered in with nausea and vomiting so that the patient ceases to take the drug automatically. Nor is it only in patients suffering from valvular heart disease that the remedy does good. Many other conditions in which the patient would be better if only the circulation could be carried on with greater force are enormously improved by large doses of the drug. I am convinced, for instance, that even in

HIGH BLOOD PRESSURE CASES

when it might be thought that tincture of digitalis would constrict the blood vessels and so lead to harmful increase in the pressure, it will be found again and again to be the best remedy that the patient can be given. This is particularly true when along with his high blood pressure he has sypmtoms of breathlessness on exertion, precordial pain, slight œdema of the legs, and the other familiar effects of early failure of the heart. As I have pointed out elsewhere (*Clinical Journal*, 1911) I am convinced that there are many cases in which the high blood pressure is not necessarily a thing that has to be done away with, but is often a necessity to the patient, the best that nature can do to compensate for the advanced degree of his arterial disease. It would carry us too far away from the main part of our discussion to-night to enter into the reasons which underlie this belief, but I am quite certain that I have seen many patients made worse instead of better when remedies such as liquor trinitrini, amyl nitrite, erythrol tetranitrate, potassium iodide, and so forth, were prescribed with the idea of bringing the pressure down. The cases in which improvement co-incides with a lowering of the blood pressure are those in which the arteries, though stiffening, are still capable of being rendered lissom again, especially by simple dietetic measures, and by various graduated bodily exercises which may be grouped together under the heading of "arterial gymnastics." When, however, the vessels are permanently rigid so that they can no longer be made to vary in calibre lissomly under the influence of the vaso-motor system, the only way to keep the circulation up to the level required by the maximum-demanding organ is to call upon the heart to do more work. It does this, and hypertrophies. In doing so, the force of the arterial circulation rises as expressed by the rise in the blood pressure. This is due far more to the increased heart force than it is to the hypothetical "increased peripheral resistance," in which I do not believe very much. The patient may reduce the demands upon his heart by decreasing his work—that is to say, by becoming an invalid. If, however, he is to avoid being shelved he must do his best to make such arteries lissom again as are not permanently fibrosed—Nauheim exercises are excellent for this; but he must also get his heart to do the full amount of work asked of it, and to this end, *if it has shewn signs of failing* 15 minim doses of digitalis three times a day will be found tremendously useful. I have found medical men afraid to give it for fear of producing cerebral hæmorrhage; I have never seen this accident so produced, and rather than leave the patient ill for certain I would run the risk of the possible apoplexy. I have seen many cases restored to years of activity both of body and mind—apparent perfect health so far as the

patient's feelings were concerned—after even an extreme degree of chronic heart failure had come about from arterio-sclerosis and high blood pressure before the 15 minim doses of digitalis were begun and given four times a day. The pressure generally rose moderately. The patients were in better health with the higher blood pressure, which means that the latter was a necessity on account of the arterio-sclerosis, had to be maintained by the hypertrophied heart, and was beginning to fall because the heart was beginning to fail to maintain it. When the heart was enabled to maintain the higher blood pressure again the patient lost his untoward symptoms and felt well.

One serious defect in digitalis as a cardiac drug is the slowness with which it acts. The benefit seldom, if ever, begins to show before the fourth or fifth day after full doses are begun. The remedy is, therefore, of comparatively little use for emergencies or acute cases of heart failure in association with fevers, pericarditis, and so on; at least, other drugs such as strychnine are required to act upon the heart during the four or five days that must elapse before the digitalis effects begin to show. A good way of testing the benefit is to measure the volume of urine passed. This generally rises considerably when the digitalis begins to tell beneficially upon the heart muscle. There are very few heart cases, be the signs what they may, in which digitalis should not be tried thoroughly; and it should only be given up if needs must, for there is no other drug that can do as much for heart cases as tincture of digitalis does, and there is no other means of determining whether it will do good or not except trial in each case. It should nearly always, however, be given apart from other drugs, and not in a composite mixture.

Two Cases of Pulmonary Embolism following upon the Intra-Muscular Injection of Mercurial Cream.

BY C. H. MILLS.

THAT in the employment of the above method of administration of a drug, the occurrence of pulmonary embolism is by no means a hypothetical text-book bogey, is amply proved by the accompanying report upon two cases recently observed at Out-Patients at St. Peter's Hospital.

In each instance the patient was having his routine intra-muscular (gluteal) injection of mercurial cream. (Lambkins cream.)

The customary precautions regarding asepsis, selection of the site of injection, &c., were taken. The needle, after insertion, was watched for some seconds to ensure that the point was not actually within the lumen of a blood vessel as evidenced by the flow of blood usually noticed in this event. The syringe was then fixed into the needle socket and the cream slowly injected, the puncture finally sealed with a piece of strapping and massage commenced.

At this period in each instance the patient was seized with a violent spasm of coughing, having to rest against the couch for support. This lasted for nearly a quarter-of-an-hour. The patient was given water to drink and seated in a chair.

What is most interesting and pathognomonic is the fact that both patients complained of an intense taste of camphor.

This fact first made me realize that the spasm of coughing was due to an embolus of the mercurial cream reaching the lung—the "creo-camph" (equal parts of creosote and camphoric acid) used in the same as a local anæsthetic and antiseptic having set up his embolism.

Neither patient underwent any further trouble; they each had previous injections and have since received subsequent ones with no disturbances. I think that the chief points of practical interest to be gained from the above cases are:—

(*a*) That although a certain proportion of the mercurial cream certainly reached the lung through the blood-stream, yet the results were not very alarming. Of course, it is impossible to estimate how much of the cream actually entered into the circulation, or what would be the effect if the whole of the ten minims were to do so.

(*b*) That it is erroneous to assume that the needle is not into communication with a vein merely because there is no resultant flow of blood after its introduction. This is easily explained (as I pointed out in a paper on Salvarsan last year—G.H.G., December 9th, 1911) by the fact that when a needle of large size is inserted through skin, subcutaneous fat, muscle, etc., it is more often occluded by a plug of tissue than not, resembling the sample obtained by a "cheese-taster." Or, again, a vein may have been "button-holed," and the point of the needle lie just beyond the opening, and yet the injected fluid would come into direct communication.

Should blood flow from a needle after its introduction I now make it a rule to withdraw the same completely and make a fresh puncture, not being content with merely altering the position of the point and using the same puncture as formerly.

Another precaution I take is always to pass a stilette down the needle when in situ, to make certain it is patent and would permit of the flow of blood should a vessel be tapped.

These are the only two instances I have observed out of over one thousand injections.

Sport.—Cricket.

GUY'S v. SEVENOAKS.

Played at Sevenoaks on May 11th. Guy's won the toss and batted first. We batted for two hours, and could only scrape together 121 for 9 wickets. Montgomery arrived too late to bat. Birks played good cricket for his 38.

GUY'S.

A. H. Birks, b Druce	38
V. Vincent-Brown, c Lovett, b Cross	0
G. W. M. Andrew, b Grayley	4
F. C. Hunôt, b Grayley	5
A. H. Harkness, b Grayley...	1
R. Montgomery, absent	0
J. Welton, b Druce	2
R. Coombes, c Cross, b Druce	9

T. H. V. Wood, not out	12
G. Noot, b Denning	3
V. Liebson, c Druce, b Cross	10
Extras	37
Total	121

SEVENOAKS.

E. J. Blackmore, c Coombes, b Hunôt	29
C. W. Denning, b Andrew	1
E. H. Druce, b Andrew	11
H. J. Cross, b Welton	39
F. H. Cross, b Welton	44
F. C. Lovett, b Harkness	42
A. W. Martin, b Welton	4
Capt. G. F. Anson, b Montgomery	47
A. V. Laver, not out	0
H. Blythe, run out	6
— Grayley, c Andrew, b Welton	0
Extras	17
Total	240

GUY'S v. HAMPSTEAD.

Played at Honor Oak Park on May 15th. Guy's again won the toss, and on a "plum" wicket could do very little with the bowling of Rayner and Hooper. Biddle was the only one who was really at home with the bowling. Welton took 4 wickets for 40 runs.

GUY'S.

A. B. Bond, b Rayner	6
J. Vincent-Brown, b Rayner	16
A. C. Hancock, c Everett, b Hooper	16
F. C. Hunôt, b Hooper	10
G. W. M. Andrew, c Hodgson, b Hooper	8
F. J. Biddle, not out	38
A. H. Harkness, b Hale	7
C. H. Medlock, c Hale, b Wilson	8
T. A. V. Wood, b Rayner	9
F. E. Welton, c Evill, b Rayner	3
G. Noot, b Rayner	3
Extras	14
Total	138

HAMPSTEAD.

T. H. Farmiloe, b Harkness	28
G. M. Hodgson, b Harkness	19
W. M. Lyle, b Welton	21
W. S. Hale, st Bond, b Hunôt	69
H. A. Rayner, lbw, b Welton	7
R. J. Everett, c Wood, b Andrew	46
J. H. Thurston, b Welton	12
S. E. Hooper, run out	13
W. A. Evill, c Welton, b Andrew	3
K. Wilson, b Welton	1
T. Atkins, not out	2
Extras	14
Total	235

GUY'S v. REIGATE PRIORY.

Played at Reigate on Saturday, May 18th. Reigate batted first, and on a slow wicket scored 140. In the afternoon the sun made the wicket very difficult, and perhaps this accounts for our inability to play the bowling of Budgen and Renfold.

REIGATE.

R. Renfold, b Harkness	7
F. Nightingale, b Sampson	26
G. Notion, run out	0
L. Cook, c Hunôt, b Harkness	3
H. Budgen, c Liebson, b Andrew	22
A. W. Bowger, b Harkness	11
R. H. Hoole, b Harkness	0
W. F. Thompson, c & b Harkness	17
C. E. Roberts, c Hunôt, b Harkness	30
A. Webb, b Harkness	18
H. R. Fimions, not out	0
Extras	6
Total	140

GUY'S.

A. B. Bond, b Budgen	19
J. Vincent-Brown, b Renfold	5
A. H. Birks, c Budgen, b Renfold	1
R. M. Veale, b Budgen	0
F. C. Hunôt, b Renfold	2
B. F. Sampson, b Renfold	0
G. W. M. Andrew, not out	9
A. H. Harkness, c & b Budgen	1
F. A. V. Wood, b Budgen	0
F. C. Coombes, b Budgen	1
A. S. Liebson, b Budgen	0
Extras	4
Total	42

Cricket Fixtures for 1912.

FIRST ELEVEN.

May	25	Bexley Asylum	Away
	27	Crofton Park	Home
	29	The Past	Home
June	1	Mote C.C., Maidstone	Away
	7	Thespids	Home
	8	Horton Asylum, Epsom	Away
	12	Darenth Asylum	Away
	15	Granville Lee	Away
	19	Hampstead	Away
	22	Bromley	Away
	26	Forest Hill	Home
	27	Surrey Club and Ground	Away
	29	Wanderers	Home
	30	Thespids	Away
July	1	Forest Hill	Away
	3	Old Whitgiftians	Home
	13	Croydon Mental Hospital	Away
	27	L. C. & W. Bank	Away

SECOND ELEVEN.

May	25	Old Manorians C.C.	Home
	29	Royal Naval College, Greenwich	Away
June	5	London Hospital	Away
	8	Hampstead Nomads	Home
	26	St. Bartholomew's Hospital	Away
July	6	Granville 'A'	Away

Birth.

WATSON.—On 17th May, at Sandbrow, Churt, Farnham, the wife of Cecil F. Watson, M.R.C.S. Eng., L.R.C.P. Lon., S.M.O., Lokoja, Northern Nigeria, of a Son.

Death.

MACKERN.—On the 2nd inst., at 9, South Cliff, Eastbourne, George Mackern, M.D. Lond., M.R.C.S., formerly of Guy's Hospital and late Visiting Physician to the British Hospital, Buenos Aires, Argentine Republic.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 625.] JUNE 8, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	221–223
Pass List	223
Notes on Two Uncommon Diseases	224–225
A Case from General Practice	225
Junior Guyite Club	225
A Case of Pulmonary Embolism from the Wards	226
Correspondence	227–228
Change of Address	228
Vienna and the Viennese	229–230
Appointments	230
Pregnancy with Fibroids. Abstract of Clinical Lecture by Mr. Targett	231–233
Reviews, etc.	233
Gazette Special Pathologist	233
Abraham Cowley	234–236
Society and Disease	236–237
Rochester	238–241
London Bridge and the Borough in the Eighteenth Century	241–243
Guy's Hospital Ladies' Association	243
Sport	243–244

Passim.

THE Grand Matinée in aid of the funds of the British Medical Benevolent Fund Guild, was held at the St. James's Theatre on Thursday last, before a large and distinguished audience, and was a tremendous success both as regards the enjoyment of those present and from the financial standpoint. The first item on the programme was a scene from Act III. of Henry VIII., in which Sir Herbert Tree, Mr. Bourchier and company appeared. This was followed by a really delightful little skit by J. M. Barrie, entitled "A Slice of Life," most admirably acted by Miss Irene Vanbrugh, Miss Hilda Trevelyan, and Mr. du Maurier, which should most certainly be heard of again. Miss Braithwaite and Miss Marion Terry played a scene from the third act of "Lady Windermere's Fan," after which came "A Marriage has been arranged," being a play, in little, by Alfred Sutro. Mr. Bourchier and Miss Violet Vanbrough's acting in this duologue was, perhaps, the most attractive feature of a memorable afternoon. Sir George Alexander, Mrs. Patrick Campbell, Mr. Cyril Maude and Company, in the first Act of "The Second Mrs. Tanqueray," provided a suitable finish to the magnificent programme provided, and the organisers who gathered together such a galaxy of talent deserve the congratulations and thanks of all who were fortunate enough to be present.

SIR GEORGE ALEXANDER at the end of the afternoon announced the financial result of the Matinée, and said that £700 had been paid for tickets. He remarked that at a recent meeting of theatrical managers it had been pointed out that the funds of the various theatrical charities were not in a very flourishing condition, and consequently it had been decided to deduct a certain percentage from the profits of all charitable performances to be used for their benefit. Fortunately, in the present case this was not necessary, because some generous person had very kindly presented the sum of £150 to the Actors' Benevolent Fund. The British Medical Benevolent Fund is our chief professional charity, and the Guild, which is an Association of ladies for the purpose of helping and popularising the Fund, is doing very good work; consequently the whole profession should be extremely grateful to those who organised this performance, and to the Actors and Actresses who so very kindly gave their services. The British Medical Benevolent Fund Guild is not so well known to the profession and others as it should be, and it is hoped that this Matinée, as well as substantially benefiting the funds of the Guild, will also serve to popularise it, and will induce more ladies than hitherto to interest themselves in its work.

As already announced in the GAZETTE, the subject of clinical lectures has been under consideration by a Committee for some time, and we understand that various proposals for alterations in the existing arrangements have been made and are shortly to come into force. The division of the year into three terms,

each of which lasts about eleven weeks, and in each of which about thirty clinical lectures are given, is to be abandoned, because it is felt that clinical work proceeds all the year round, and consequently division of the clinical period of study into terms is meaningless. The time of 1.30 p.m. on Wednesdays has been found to be most generally suitable for attendance at lectures and consequently that is the time fixed for the medical and surgical clinical lectures. The medical and surgical lectures will be given alternately, and there will be twenty-six of each during the year. The lectures on special subjects will be given throughout the year on Mondays at 1.15 p.m. excepting during the months of August and September, and there will thus be four lectures for each of the ten special departments during the year. It will be seen, therefore, that roughly the same number of clinical lectures will be given under the new arrangement as at present only they will be spread over a greater number of weeks and consequently it should be possible to secure a far better attendance at these lectures than has been the case of late.

ANOTHER recommendation of the Committee is of great interest and importance, namely, that any Lecturer on Medicine or Surgery, or on a special subject, may substitute a demonstration on cases from the wards or from out-patients, held in the Old Surgical Theatre at the time and on the day appointed for the clinical lecture, such demonstration to be advertised in the same way as a clinical lecture, and to count as a clinical lecture for the Student's signing-up. The great value of these demonstrations on selected cases has been repeatedly urged in the GAZETTE, and it is to be hoped that the lecturers will often avail themselves of the choice afforded. Real clinical lectures—and by real we mean clinical as opposed to systematic lectures—have always been popular with Students, and the only reason for poor attendances has undoubtedly been the difficulty often experienced in fitting them in with other work. It is hoped, therefore, that under the new arrangement clinical lectures will become something more of a function than they have been, and that it will be the thing to attend as many of them as possible rather than to boast of the number that have been successfully evaded. The systematic lectures will, of course, go on as before—a permanent anacronism, the result of the hopelessly conservative attitude of the examining bodies. Nearly everyone agrees that they are almost useless from the teaching point of view, and we feel sure that they could with great advantage be replaced by additional demonstrations and "real" clinical lectures.

THOSE who have felt aggrieved at the abolition of the month's holiday which came before the appointment of Full Surgeon's Dresser, will be pleased to hear that arrangements are being made to ensure to each man during the time he is doing the compulsory appointments the right to an annual holiday of a month. The names of all Students holding compulsory appointments are to be kept in the Medical School Office, and opposite to each name there are to be four vouchers, each of which shall be value for one week's holiday. Students wishing to take a holiday will apply at the Medical School Office for one or more of these vouchers, provided that not more than two weeks holiday shall be taken during one appointment and that all holidays are to be taken subject to the convenience of the wards in which the student is working. Students who are members of the Territorial Force of the Officers' Training Corps shall be permitted to count their two weeks in camp as one week, and in alloting holidays preference shall be given to Territorials going to camp. In the case of Students holding compulsory appointments in the wards for nine, six, or three months in the year, three vouchers, two vouchers, or one voucher, respectively, shall be inserted in the ledger opposite their names.

IT has been very generally felt that in most cases some holiday is necessary during the time a Student is holding the compulsory appointments, and the present system of taking one unofficially during the ordinary appointments has been thought to lead to a certain amount of unfairness in "signing-up." It is therefore

intended that under the new system these holidays shall have, as it were, official protection, and that those enjoying them shall not in any way bear the stigma of slackness; in fact, we understand that the Medical School Authorities are particularly desirous that men shall avail themselves of this minimum annual holiday of one month. The holidays will, of course, have to be taken with a due regard to the convenience of the other members of the firm, and of the Physician or Surgeon with whom the Student is working. These new regulations will, we understand, come into force from next October, and these, together with the arrangements for securing a month's holiday after the appointment of Out-Patient Officer, go far to remove the just complaint of the medical Student that he is overworked.

We are asked to announce that the annual entertainment of the Guy's Hospital Swimming Club will take place on the evening of June 27th at the Southwark Baths. There will be the usual events, including a water-polo match, and it is hoped that the entertainment will prove as popular and successful as those held in previous years have been. In consequence of the great keenness shown amongst the swimming section of the nurses, it is rumoured that the nurses are to compete with the men in certain events, and should this be so it will, we feel sure, prove an extremely popular feature of what is always an excellent evening's entertainment. Tickets will be on sale during the coming week, and all further particulars may be obtained from the Hon. Secs., H. N. Eccles and A. V. Moberly.

The (Biennial) Health Conference and Exhibition, 1912, will be held at the Royal Horticultural Hall, Westminster, on June 24th, 25th, 26th and 27th, under distinguished patronage, and the programme of the Conference is one which should command large audiences. The subjects to be discussed range from deafness in children to hospitals for the middle classes, and from schools for mothers to "Why babies die." Free tickets of admission to those interested in health questions will be forwarded if application is made before the date of the Conference and Exhibition, and it is hoped that the profession will show its realization of the importance of hygiene in prophylaxis by being present in large numbers.

The annual sports of the United Hospitals Athletic Club will be held at the Stamford Bridge Athletic Ground on Tuesday, June 11th, commencing at 2 p.m., and it is hoped that as many Guy's men and nurses as possible will be present to support the Guy's competitors. Our prospects in the sports are at present none too bright, and consequently as much stimulating enthusiasm from the spectators as possible is needed. The way to get to the ground is by train to Walham Green on the District Railway, or to South Kensington and thence by 'bus to Stamford Bridge Ground.

We have often felt hurt at not being able to enter into the journalistic race for the earliest bird or the largest gooseberry; but while still debarred by a not quite dormant conscience from such attractive subjects, we can at least lay claim to the very latest thing in birds'-nests. A fashionable pigeon has recently built a nest in a room in the Nurses' Home, the foundations of which consist of safety pins, hair pins, and pins in large numbers, together with a brooch, the property of the owner of the room. Those of our readers wishing to know the exact size and number of the pins should enclose a stamped addressed envelope for reply.

Pass List.

University of London.

THIRD (M.B., B.S.) EXAMINATION FOR MEDICAL DEGREES.—May, 1912.

Adams, M. M. | Denning, A. F. W.
Blackwood, B. | Norton, E. L. R.
Campain, J. H. | Parmiter, B. R.

Passey, R. D.

Group I.

Matthews, W.

Group II.

Aldis, C. | Cole, T. P.

University of Cambridge.

The following degrees have been conferred:—

M.B. and B.C.: A. E. Rayner.

Notes on Two Uncommon Diseases.

These two cases have recently been the subjects of two demonstrations at Prof. V. Müller's Klinik in Munich, and may be of some interest.

TRICHINIASIS.

A girl of about 20 was admitted into one of the Munich hospitals suffering from a continuous pyrexia of gradual onset. There was a generalised œdema present. The eyes were painful and swollen. The back of the tongue was very sensitive and tender, but there was no pharyngitis to account for it. There was pain in the neck on movement.

Kœnig's sign was present. The plantar reflexes were absent. The knee jerks and Achilles jerks gradually disappeared while the patient was in hospital. There was a positive diazo reaction and a negative Wassermann.

Miliary tuberculosis, generalised sepsis and typhoid were considered as possible diagnoses; but the cerebro-spinal fluid was normal though under high pressure; blood cultures remained sterile, and a blood count showed that there was a leucocytosis of 17,000 and an eosinophilia of 28%. This latter fact suggested the correct diagnosis. In South Germany this disease is uncommon, as though a great deal of pork is eaten, especially in the form of sausages, it is nearly always cooked.

On inquiry, it was found that in this case some raw meat was eaten at Easter, and other members of the party were afterwards taken ill with gastro-intestinal disturbance and muscular pains.

The disease is often characterized by early gastro-intestinal symptoms which subside, and there then follow later the symptoms of a general infection.

The general features of a moderately severe case were well illustrated in this patient. The characteristic symptoms were the severe muscular pains. The œdema especially about the eyes, the absence of reflexes, the positive Kœnig's sign and diazo reaction.

The muscles affected were the diaphragm, which were higher than usual and did not move well, the sterno mastoid, the tongue, and the extrinsic muscles of the eye. These are all very characteristic. The patient subsequently recovered.

THOMSON'S DISEASE (MYOTONIA CONGENITA).

This disease is characterised by a tonic contraction of the muscles on attempting to perform voluntary movements. The movement is slowly performed with considerable effort, but on repetition it becomes easier, and finally the stiffness entirely disappears for the time being. Another feature is that after a movement has been performed, the contraction may still persist for some time, so that the limb remains fixed in the position it occupied at the end of the movement. It is found as a rule that the effect of cold and strong emotions makes the symptoms worse.

The patient was a well-developed man about 30 years old. There was no family history of the disease. It was very generalized. On attempting to walk, it was with the greatest difficulty that first one leg was put forward, and then the other. After four or five steps had been taken the stiffness completely disappeared. The movements of the arms and hands and tongue were similarly affected. The same tremendous effort had to be undertaken before the eyes could be closed, and, when closed, before they could be opened again. When told to count up to 12 he had the greatest difficulty in saying the lower numbers, making grimaces in his effort to do so, but when he had reached five, all difficulty was at an end, and he could count quickly.

The disease came on in childhood, but besides the fact that he was rather backward in playing games with other children, nothing particularly wrong was noticed about him. His troubles began when he was doing his military service. On one occasion he had to salute. His hand remained up continuously in the same position. For this offence he got two days' imprisonment. On another occasion he was out with his regiment on a winter's day. The order came to advance. All the soldiers moved on, and he was left standing behind. Another two days' imprisonment was the result. When out skiing one day, he managed quite well until the party stopped for a rest before coming down. The combined effect of inaction and cold increased the symptoms to such an extent, that he remained absolutely immovable.

After various experiences and further imprisonments, he was seen by a doctor who sent him to Heidelberg where the diagnosis was made, by Krehl. The following electrical reactions were obtained. With a short Faradic stimulation there was a prolonged contraction gradually passing off; on repeating the stimulus the con-

traction was somewhat shorter, and on further repetitions it became perfectly normal. This is always compared with the action of veratrine on a frog's muscle. On passing a strong galvanic stream of 30–40 amperes through a limb, a series of waves was seen passing along the muscles.

On mechanically stimulating the muscles with a small hammer the over excitability was shown by a prolonged contraction.

E. P. POULTON.

A Case from General Practice.

March 18th, 1912. Mrs. A., married four months, complained of great weakness and giddiness. Said she had difficulty in walking to surgery, and when she came off the couch she said "I feel so giddy and have a funny feeling in my legs." Complained also of pain, not very severe, all over abdomen, and especially in both loins. The pain was continuous, with exacerbations. It had no relation to food. She could not think of anything she might have taken, except bloater-paste, that might have disagreed with her. She had vomited once. Appetite poor. Said "bowels are all right at present, but I am usually inclined to be constipated." (She later on acknowledged that she had been getting *more and more* constipated.) Temperature 96°, pulse 110. Last courses a fortnight ago (said later they commenced on the 10th of March). They usually last only two days, this time they lasted five days, and patient lost much blood. She at first said she was two days late, but later said she was five days late. The bleeding stopped completely on the fifth day. Several large clots were passed; she did not examine them further. No definite localised tenderness found on palpation of abdomen. She said she was "sore all over." Abdomen quite supple, no distension, moved well with respiration. Nothing discovered by percussion. No sweats. Lungs normal. Heart normal, except for quick beat. Knee-jerks very brisk. Eyes normal. Large deposit of urates in urine, otherwise normal. Concluded she had gastro-enteritis, but could ascribe no cause. Gave mixture containing Bismuth and Morphia and Pot. Cit. to put in milk, putting her on milk diet.

March 21st. No better. Taken very little food. Felt weaker. Pain again general, all over abdomen, no definite tender spot. Slept badly. Pulse 112, temperature subnormal.

March 23rd. Patient sent for me to come to her house. Had no sleep for two nights. Said she rolled about the bed in pain for most of the night. Had a hot-water bottle on abdomen. There was now less pain in the loins, but more in the front of the abdomen. Almost everything taken the previous day was vomited. Bowels not opened since the night of 21st, although she had taken several Page Woodcock's pills. Abdomen again flaccid, moved well with respiration. Respiration normal. No localised tenderness; no tumour felt; no distension (patient thought abdomen a little larger). No resistance anywhere. Pressure relieved rather than aggravated the pain. No peristaltic movements seen on flicking abdomen. Pulse 110, temperature 98·6°. (Patient did not appear to *me* to have spent many sleepless nights, and I at the time thought she was exaggerating the pain, etc. I was probably wrong.)

March 24th. Pulse 115, temperature 99·2°. Patient had had no sleep. Vomiting all night, and vomit getting darker, but there was no smell. I stopped the Bismuth and Morphia in case the latter was misleading me. Patient felt a little better after the vomiting. Gave En. Sap. Only two small pieces, the size of small marbles, passed. Water returned black. No localized tenderness could again be found. Patient said the pain was no better. The bowels had not been opened since the 21st, and no flatus had been passed. Called in another G.P. On the way to the house we met the husband who said he thought I ought to know that his wife had taken Diachylon: on the 5th March, as much as would stand on a sixpenny-piece; later, a larger dose; 10th March, as much as would cover a dessert-spoon: this dose she vomited.

On Mag. Sulph. and En. Sap. with 10 gr. Aspirin to sleep (¼ Morphia seemed to have no effect on her), she improved rapidly.

On the 3rd April, feeling a bit bilious, she took two Page Woodcock's pills (although I had left her plenty of Mag. Sulph. for her bowels). The pain, she said, again returned. I told her to discontinue the pills and gave her a Mist. with Bismuth and Morph. again. I have not seen her since.

I should be interested to know what Page Woodcock's pills contain. I cannot find them in "Secret Remedies."

Junior Guyite Club.

The thirty-second dinner of the Junior Guyite Club was held in the Alpha Salon, the Restaurant Frascati, on 9th May. Thirty-three members were present at the dinner, nine others having accepted were prevented from attending. A very pleasant meeting of old friends was the outcome of the dinner, which was well served by the management. The usual toasts of "The King," "Junior Guyite Club," "Guy's Hospital," were duly honoured. The following members were duly proposed and elected:—Messrs. Sidney Bent, Arthur Zorab, C. H. Rippmann, H. Cuff, A. Densham.

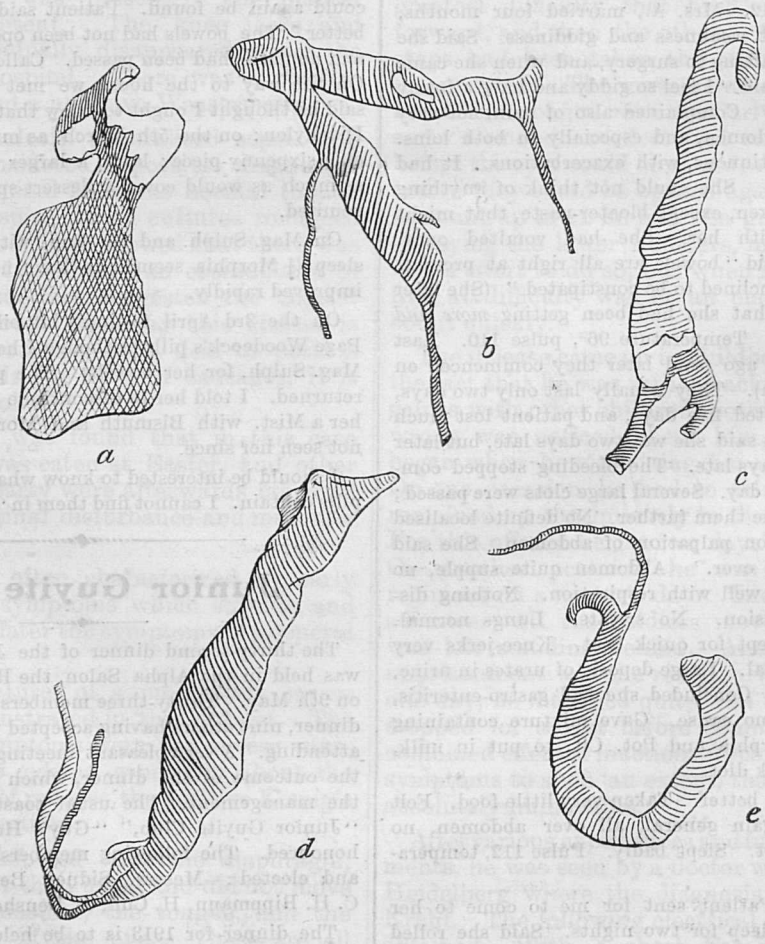
The dinner for 1913 is to be held at the Restaurant Frascati on the second Thursday in May. President for 1913: Mr. J. C. Bates; Vice-President: Dr. R. M. H. Randell.

A Case of Pulmonary Embolism from the Wards.

AN elderly man was admitted to the Hospital for observation. He complained of slight pain and tenderness on the outer side of his left leg at the junction of its middle and lower third. Otherwise he was quite normal. On palpation, a small hard lump could be felt there, but nothing abnormal was visible. The third day after admission the patient suddenly fell back unconscious whilst being washed, and died in 15 minutes. He became very blanched and internal hæmorrhage was suspected. On post-mortem examination a large pulmonary infarct, several days old, involving half of the left lower lobe was found. This was clearly due to an embolus preceding the fatal one. On opening the heart four clots of blood in no way resembling the cast of the pulmonary artery were found in that vessel, and another long thin clot was found in the right ventricle. On careful inspection, these clots were found to have branches corresponding to the tributaries of the veins from which they had come, thus proving that they could not have been formed *in situ*; and this constitutes the chief post-mortem evidence of death having been due to a gross pulmonary embolism.

The accompanying diagram shows the characteristics of these emboli:—*a*, *b*, *c*, and *d* were in the pulmonary artery in that order from above downwards. (*e*) was coiled up in the right ventricle.

C. SHERRIS.



Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

National Insurance Act.

DEAR SIR,—Allow me to congratulate you on the success of your journalistic ruse. I refer to your remarks in Passim of May 11th concerning the Insurance Act and the British Medical Association. When reading them in the GAZETTE of that date they appeared to me, to use your own phrase, as "positively Gilbertian," and now, in your issue of May 25th, I notice they have brought forth no less than three columns of correspondence, and so, I suppose, must be a considerable help in the work of editing. One could hardly imagine, in face of the attitude of a vast majority of the profession, that those remarks were the summary of your really serious opinion and so could only regard them as a very successful draw. Hence my congratulations. If you are contemplating general practice, I venture to think that you will have excellent reasons completely to alter your expressed opinion of the Association after you have been at it a very short time.—Faithfully yours,

G. McGREGOR.

Leafmore, Hill Brow, East Liss.
May 27th, 1912.

[Thank you, Dr. McGregor, another half-column!—

ED., G.H.G.]

The Biennial Dinner.

DEAR MR. EDITOR,—I append a list of the names of those who have signified their intention of coming to the dinner on June 28th.

The final list of acceptances will, with your consent, be published in the GAZETTE issued on June 22nd, and all those who wish to be included should let me know by *Wednesday, June 19th*, at latest, as the list has to be sent to press on the evening of that day.—I am, Sir, yours sincerely,

JOHN FAWCETT.

June 5th, 1912.

LIST OF MEN ATTENDING THE DINNER.

1854

†Dixon, John

1856

Daniell, G. W.

1860

Tanner, J.

1861

Roper, A.

1863

Nichols, R. T.

1864

Roberts, E. C.
Savage, Sir G. H.
*Turner, J. Sidney

1865

Elphinstone, R.

1866

Bosworth, J. R.

1867

Elliston, G. S.

1868

Brookhouse, C. T.
Goodhart, Sir James
*Higgens, C.
Taylor, Frederick

1869

Durham, F.
Gillingham, A.

1870

*Branfoot, Sir A.
Matcham, A.
Murphy, Sir Shirley
Taylor, W. Bramley

1871

Brailey, W. A.
Ewart, J. H.
Latimer, H. A.
Younger, E. G.

1872

Armstrong, R. S.
Golding-Bird, C. H.

1874

Hay, W. A. E.

1875

Bevan, R.
Brown, Thomas
Symonds, Charters J.

1876

*Barrs, A. G.
Mansell, E. R.

1877

Davy, H.
Lane, W. A.
Perry, C. E.
Uhthoff, J. C.

1878

Beale, E. C.
Bryden, R. J.
Buxton, A. St. Clair

1879

Cock, John
Howell, T. A. J.
Penny, E.

1880

Mahomed, A. G. S.
Newnham, W. H. C.
Perkins, G. Steele
Smith, J. Cameron
White, W. Hale

1881

Blatherwick, H.
Green, A.
Pitt, G. N.
*Scott, B.
Stevens, Lockhart
Warner, P.

1882

*Berry, J. B.
Cock, F. W.
Dalton, A. J.
Dunn, L. A.
Gibson, J. H.
Hind, Wheelton.
Pollard, G. S.
Price, J. A. P.
Sells, H. T.

1883

Floyer, W.
Moore, W. Hodgson
Pillin, H. L.
Shaw, Lauriston E.
Targett, J. H.
Wright, H. Holland

1884

Bean, C. E.
*Counsell, H. E.
Maggs, W. A.
Muspratt, C. D.
Tubby, A. H.

1885

Beard, F.
Goodall, E.
Owen, S. Walshe
Perry, Sir Cooper
Routh, C. F.

1886

Brock, E. H.
Burghard, F. F.
Farr, E. A.

1887

Black, G.
Browne, Robley
*Brownfield, H. M.
Randall, P. N.

1888

Metcalf, G. H.
Roberts, J. Lloyd
Scott, A.
Sharpe, C. H.
Smith, G. Bellingham

1889

Fripp, Sir A.
Holman, H. J.
*Lansdown, R. G. P.
Le Riche, P. J.
Paget, P.
Rouw, R. W.

1890

Spurrell, C.
Stevens, T. G.
Vicars, F.

1891

Coombe, T. S.
Craig, M.
Daldy, A. M.
Fawcett, J.
Pollock, C. E.
Jewell, J. W. F.
*Salter, C. E.
Young, J.

1892

Bligh, W.
Durham, H. E.
Fisher W. H.
Floyd, S. G.
Lister, T. D.
May, P. M.
Ralph, C. H. D.
*Sheen, W.
Thomas, J. D.
Young, F. C.

1893

Cooper, H.
Coulson, J. E.
Edwards, F. H.
Eyre, J.
Frith, W. S.
Hazell, F.
Little, E. Graham
*Shillitoe, A.
Still, G. F.
Wilson, F. Wallace

1894

Allport, A.
Hardenberg, E. F. H.
*Robinson, W. E.

1895

Hovenden, G. S.
Mawby, F. W.
Partridge, A. H.
Peters, E. A.
Steward, F. J.
Stewart, H. M.
Wakefield, C. F.

1896

Fagge, C. H.
Milbank-Smith, H. J. M.
Poole, T. Brice
Rowlands, R. P.
Smith, D. Lloyd
*Spon, H. J.

1897

Bruce, H. W.
Cardin, H.
*Cloud, F. H. L.
Fremantle, F. E.
Hancock, E. D.
Turner, P.
Way, M.

1898

Curtis, P. J.
Henson, W. J.
Lidderdale, F. J.
Lindsay, W. J.
McGavin, L.
*Nicholson, C. R.
Ormond, A. W.
Rowland, E. W. S.
Wills, W. K.

1899

Brook, F. W.
*Clarke, A. E.
Jones, J. H.
Payne, J. Lewin
Taylor, J. G.
Walters, J. B.
Watson, D. P.

1900

Camps, P. W. L.
Forsyth, D.
French, H.
Goble, E. W.
Stamm, L. E.
Thomas, T. P.

1901

Bevers, E. C.
*Collins, M. A.
Hammond, J. A. B.
Hardenberg, E. G. F.
Smith, Wilberforce
Thompson, R.

1902

*Odgers, P. N. Blake
Pinching, C.
Shipway, F. E.
Trail, D. H.
Wylie, A.

1903

Bethell, H. W.
*Bradbury, J. C. O.
Cooper, J. S.
Donnell, J. H.
Glendining, B.
Goldie, E. G.
Mann, H. C.
Wedd, B. H.

1904

Goble, F. G.
Hertz, A. F.
Hughes, E. C.
Iredell, C. E.

1904—contd.

Leeming, A.
Mollison, W. M.
Pollard, J. McF.
Routley, E. W.
Ticehurst, G. A.
Woodward, H. M.

1905

Clarke, H. M.
*Crofts, A. D.
Payne, O. V.

1906

Alcock, A.
Davies-Colley, R.
Goodhart, G. W.
Macalister, G. H. K.
Malleson, H. C.
Rippmann, C. H.
*Rowlands, Richard
Stebbing, G. F.
Vandermin, H. F.

1907

Air, S. H. C.
Aubrey, H. P.
Carlill, H. B.
Carr, T. E. A.
Digby, K. H.
Flower, N.
*Jones, C. E. M.
Leeming. A. Norman

1908

Atkins, F. R. L.
Ball, M.
Brookhouse, H. O.
Lucey, H.
*Price, P. S.
Ryffel, J. H.

1909

Bromley, L.
Chapple, H.
Greenwood, A. A.
Lee, H.
Lees, A. E.
*Saner, J. G.

1910

Maxted, G.
Sharp, N. A. D.
Stout, R.

1911

Billing, E.
Gardner, A. L.
*Hind, G. R.
James, H. L.
Montgomery, R.
Mullally, G. T.
Mutch, N.
Sandison, A.
Taylor, E. S.
Wingent, R. M.

Also Mr. H. Cosmo Bonsor, Viscount Goschen, Colonel F. A. Lucas, Mr. F. H. Norman, Mr. F. P. Whitbread, and the Editor of GUY'S GAZETTE.

† Date of qualification. * Vice-Chairman.

Change of Address.

T. E. Ashdown Carr, M.B., B.S., from Eye, Ear and Throat Hospital, Cheltenham, to County Offices, St. Mary's Gate, Derby.

Fleet-Surgeon F. Davidson Lumley, R.N., from H.M.S. *Devonshire*, 5th Cruiser Squadron, to H.M.S. *Bellerophon*, 1st Battle Squadron.

J. Birch Martin, from Birmingham Eye Hospital to Eye, Ear and Throat Hospital, North Place, Cheltenham.

Allen P. Piggott, from 26, Cloudesdale Road, Balham, to Kesteven County Asylum, Sleaford, Lincs.

S. K. Poole to Queen Street, Cresswell, Mansfield.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

Vienna and the Viennese.

FULLY to appreciate Vienna the visitor must not compare it with any other city. Some places are interesting for the individual buildings or characteristics in them. The Belfry of Bruges or the Harbour of Rio de Janeiro are examples of these, such can be taken away from the people who inhabit them and could be admired independently of the place they are in. Other places, again, are remarkable for the striking contrast of the persons in character, in costume, or in custom from those more ordinary individuals of London. Either of these classes of places may be compared with others the visitor has seen before, for each piece can be dissected and contrasted. But in Vienna there is no building that by itself rivets the attention, no custom in marked antithesis to those of London, and the people are a race of human individuals who are not far distant relations from the Englishman. We must therefore forget London and the Londoner, or at any rate not mentally place them beside Vienna and the Viennese. To the English eye the Stephens-Kirche is over-ornate, and if it were planted down in some open space where all could be seen at once we should be inclined to decry it; but situated as it is in the main square of the city with the best shops and cafés surrounding it, with the Archbishop's palace by its side, and above all, with the continuous throng of people crossing the square, we can but feel that it is a building eminently suited to its place. So, again, with the beautiful Ring Strasse and all the buildings situated on it. This street surrounds three parts of the old city, and is on the site of the former ramparts. On either side of it have sprung up all the important buildings of the city. The University, the huge Rathaus, the Imperial museums and theatres, the Parliament House, Law Courts, Criminal Court, and above all the huge Hof Burg, or Imperial Palace, built at different times and therefore wandering about in different directions with a want of symmetry most pleasing to the eye. Stand in the main court yard at five minutes to one o'clock, and in two minutes you will hear a band playing; exactly as the clock strikes one the bandmaster will come through the archway followed by the band and the new guard for the day. The old guard is drawn up facing the Imperial apartments as the new guard marches in and takes its place before them. The band then plays the glorious tune of the Austrian National Anthem, as the old guard hands over the standard to the new guard. Then the band takes up a position in the middle of the square and plays delightful music while the sentries all round the palace are changed; the old guard forms up again, and band and guard march off again through the streets to the barracks.

The Viennese are proud, and justly so, of their military bands; all are musical, and many are musicians, and they are, therefore, able to recruit good musicians for the bands; and are prepared to pay for them—No! my dear madam, I did not say they are better than our Guards' band, and I know perfectly well that the same ceremony is gone through every day in London; but we had agreed to forget London, and I am writing of Vienna and the Viennese, not of London and the Londoners. These bands are heard daily in the Volksgarten of an evening, as well as in the Türkenchauz Park and other open places. Here may you sit beneath the trees and drink beer or dine while listening to the best of music—Wagner and Richard Strauss, Beethoven and Franz Lehar—classical and gay, and all well-played. But the great attractions in Vienna are the people, not the place, or, rather, the people in the place. For they are both merry and strenuous. They work while they work, and having done with work they play. They are early risers these Viennese, all the shops are open by 8.30 a.m., the banks begin work at 9 a.m., the work in the hospitals at 7 or 8 a.m. There is no need here for a vapourous early rising bill, no thought of changing the character of a nation by turning the hands of the clock on April 1st. Already do they use the morning sun, and so have time left of an evening to enjoy themselves. True these habits give rise to sights which at first seem peculiar to the Londoners' eyes. For with breakfast at 6.30 a.m. one is hungry by 11.30, and may not have shaved before it. Imagine the Senior Assistant-Surgeon of a London Hospital washing-up after an operation, while the staff Anæsthetist produces from his trouser pocket a piece of paper in which are wrapped a small roll and piece of cheese, which he eats with the utmost unconcern while the next patient is got ready. This operation begun, enter the R.S.O. to see if anything interesting is being done, finding it but a small thing he borrows the theatre soap, retires to a corner where a looking-glass hangs on the wall, and producing a razor from one pocket, and a brush from another, proceeds to shave!

At Guy's this would be thought a fairy tale, but it happened in Vienna the other day without anyone but the insular Briton observing it. And yet with all this they have the greatest admiration for the British nation, and are friendliness itself towards all Britishers. No one could be kinder to a stranger than they have been to the writer. It is this association with the Viennese that has made a visit to the city so agreeable. One has asked him out to dinner and taught him auction bridge, another has introduced him to his tennis club, the former again has taken him for an excursion into the country and shown him mountains, as though the Londoner would take a visitor on to the Chiltern Hills and show him North Wales. Two Viennese ladies have taken him to the Imperial Picture Gallery and shown him all the pictures. Yes! the Viennese ladies are indeed delightful, they all speak English, so that learning German becomes harder, true they are willing to listen to execrable German, and to help one on with it. But who would do so when talking to a lady; you are as great a stranger at the end of an hour as at the beginning. But if you speak to them in English, you find at once the ice is broken, also you begin to feel small for they are highly cultured people. They not only speak English,

they have read our literature, they know our art, if not by being in London, by reproductions and reading. I have seen the "Studio" in most shops and on several tables. One lady has read some Chaucer and the first book of the "Fairie Queen," as a preliminary to studying Shakespeare, another has read Buckle's "History of Civilisation," and the whole of Byron. Indeed, Byron seems to be the best known English poet after Shakespeare, most people have read him, and I have seen several copies of his life and works in the second-hand book shops. In the drawing-room of another Austrian lady the story of "Dorian Gray" and the "Connoisseur," lay side by side with Rauke's "History of the Popes." But the chief attractions of the Viennese ladies are their grey eyes and short hat pins!

The writer has always given a pair of grey eyes a high place in his mental list of the causes of tachycardia. They are associated here with a light brown hair and a long, straight and slender nose, which together make a characteristic and very attractive face. Nearly all have these grey eyes, some blue, and some brown—not the dark brown seen in England, but rather a deep olive green specially seen here among the poorer classes, and in England seldom seen at all. Red hair, again, is here but seldom seen, but that is not to be wondered at, as the Celtic races are here unrepresented. Teutons modified by Slavonic tribes form the majority of the population. In fact, one Professor told the writer that the whole population of Germany and Austria was so intermingled with Slavonic peoples that the pure Teuton can be seen nowadays only in England. It is because of their grey eyes, perhaps, that the Viennese ladies care for the eyes of others. Their hats are just as large as the English ladies; the heads of the hat pins are also as large, and as highly decorative. But the point does not stick out from the other side of the hat for more than half-an-inch. Unless, therefore, you are nearer to the lady than is consistent with an ordinary acquaintance, you are in no danger of being scratched. It is therefore safe to crowd into a tram without fear of injury. Such crowding is necessary sometimes. The service of trams is excellent in its organisation, but on Sundays so many people are about that there is a struggle to get in.

The organisation of their streets makes one of the greatest contrasts imaginable, for with their excellent service of trams their streets are paved in a way that would be an insult to the first half of the nineteenth century. All are stone blocks very unevenly laid, so that to walk far in the streets gives one swollen feet, and when a little rain comes it collects in little puddles with the blocks of stone between "standing out as islands like the hedges in a flooded land." The result is any amount of mud and splashes after the smallest rain. Their method of watering the streets shows a similar contrast. In the inner city up to date sprinklers are attached to the water carts, but in the outlying districts the sprinklers consists of a piece of hose with a rose spray on it. Attached to this is a string which a man holds and follows the slowly moving cart as he jerks the rose from side to side, and so sprinkles all the roadway. An accidental extra jerk one way or another results in the water being further distributed than was intended, or, indeed, than is necessary from the pedestrians' point of view. Of the fauna of the city the horses and the fleas are fine and vigorous. The latter are hungry and elusive, the former are bred on the plains of Hungary, and are beautiful animals with sleek coats, small heads, and a tendency to kyphosis. Cart-horses and cab-horses are alike, the former big and strong, the latter in pairs behind which one would not be ashamed to drive in Hyde Park. Vienna and the Viennese have given to a solitary stranger a welcome he will not forget, and a friendship he hopes to renew.

T. B. L.

Appointments.

Naval and Military.

NAVAL.

Fleet-Surgeon F. Davidson Lumley, R.N., has been appointed to the *Bellerophon*, 1st Battle Squadron.

Surgeon G. B. Cockrem, R.N., has been appointed to the *Victory*, for disposal.

Surgeon W. P. Walker, R.N., has been appointed to the *Pelorus*.

Surgeon F. R. Featherstone, R.N., and Surgeon H. B German, R.N., are permitted to withdraw from H.M.'s Naval Service with a Gratuity.

MILITARY.

R.A.M.C.

Captain H. V. Bagshawe has been posted for duty at Sheffield.

Captain W. P. Gwynn has been appointed to command the Station Hospital, Karachi.

Captain G. H. Rees has been posted for duty in Belfast District.

I.M.S.

Major E. J. O'Meara, on completion of special duty, has been appointed to Agra.

Major H. Austen Smith has been selected for appointment as Civil Surgeon, Simla East.

Captain H. Watts has been placed at the disposal of the Government of India Education Department, on relinquishing the appointment of Plague Medical Officer, Lahore.

Territorial Force.

FIFTH LONDON FIELD AMBULANCE.

Major E. B. Dowsett to be Lieut.-Colonel, 18th May, 1912.

Civil.

W. H. Maxwell Telling, M.D., B.S. Lond., M.R.C.P. Lond., has been appointed Hon. Physician, Leeds General Infirmary.

Pregnancy with Fibroids.

ABSTRACT OF CLINICAL LECTURE BY MR. TARGETT.

THE following case was seen in consultation with Dr. Ransford, of Ingatestone, on April 10th, 1912. The patient was a woman aged 40, who had been married eight years, but had never been pregnant. She had always enjoyed good health, and the periods had been regular and not excessive, lasting some five or six days. She had always suffered some pain at menstruation, but not enough to cause her to lie up. Her last period began on December 30th, 1911, and was natural in every way. In March there were signs of pregnancy in the form of sickness, with enlargement of the breasts and of the abdomen. At the beginning of April the abdomen seemed to be swelling rapidly, and on this account she called in Dr. Ransford. Examination showed that the uterus was enlarged by pregnancy to the size of a three and a half months' gestation. Rising above the fundus of the pregnant uterus to a little beyond the level of the umbilicus was a hard rounded tumour, movable from side to side, and having the physical characters of a pedunculated subserous fibroid of the uterus. On vaginal examination the uterus was found to be pushed forwards and upwards by what was thought to be another fibroid tumour occupying the greater part of the pelvic cavity. The presence of this pelvic mass seemed to be the cause of the upward displacement of the pregnant uterus, and as it would be likely to obstruct labour, the patient was advised to come into the hospital for further examination under an anæsthetic.

Before relating the subsequent history and treatment of this case, I will ask you to consider for a few minutes the general subject of Pregnancy with Fibroids and the mutual effects of the one condition upon the other. The subject may be discussed under two headings (1) The effects of pregnancy upon fibroids, and (2) The influence of fibroids upon pregnancy and parturition. When it is remembered that these two conditions represent the most frequent causes of enlargement of the uterus, you may be surprised that they are not more often associated. But the reason is that a certain degree of mutual antagonism exists, or, in other words, that pregnancy confers a high degree of immunity towards fibroids. The latter occur most frequently in single women or in those who have never been pregnant; and it is a common remark in our Out-Patient Department that when a patient complains of "losing too much," if she has had eight or nine children, the hæmorrhage is not likely to be due to fibroids! Conversely, when a woman has fibroids before marriage her chances of pregnancy are considerably reduced.

A. EFFECTS OF PREGNANCY ON FIBROIDS.

1. *Enlargement of the Tumour.*—This is due to increased vascularity, congestion, and œdema. Probably there is also a more rapid growth of the fibro-myomatous tissue than under ordinary circumstances. This undue enlargement may cause discomfort or actual distress to the patient from abdominal pressure and interference with the functions of digestion and respiration. If the fibroid is in the pelvic cavity there may be pressure on the bladder, veins, and nerves, causing retention of urine, hæmorrhoids, enlarged veins in thighs and genitals, with neuralgia.

2. *Necrobiosis, or red degeneration.*—This is an important and frequent alteration in the structure of the fibroids, and is in some way associated with pregnancy in the majority of cases. The substance of the tumour undergoes a peculiar bio-chemical change which converts it into a reddish-brown mass, and its elements lose their staining qualities to the various selective reagents used for microscopical sections. When this degeneration is taking place the tumour usually becomes very tender, and it may be accompanied with symptoms of acute toxæmia in which the patient becomes seriously ill with pyrexia, rapid pulse, vomiting, severe abdominal pain and tenderness. The diagnosis of such a condition from appendicitis and other causes of "acute abdomen" would be a difficult and anxious matter, but we cannot discuss it now.

3. *Torsion of pedicle.*—Pregnancy and parturition are common causes of the twisting of the pedicle of an ovarian cyst. In the same way a subserous pedunculated fibroid may become twisted if its pedicle is small enough. I have met with this complication once in the course of an operation for fibroids with pregnancy. The tumour was of a deep black colour, engorged with blood, and its pedicle was tightly twisted. The rarity of this occurrence is due to the fact that subserous fibroids are usually sessile, or have short thick pedicles.

We pass now to the more important section of our subject.

B. THE INFLUENCE OF FIBROIDS UPON PREGNANCY AND PARTURITION.

1. *Miscarriage.*—The frequency of this risk has been estimated at about 25 per cent. of the cases, which is only a small increase above the average frequency apart from fibroids. The dangers of incomplete abortion, however, are greater, from the difficulty of emptying the uterus of any retained products of gestation, and from the increased risk of septic infection of the fibroids.

2. *Post-partum hæmorrhage.*—It is generally admitted that there is an increased liability to this complication of labour, especially when the fibroids are multiple and much embedded in the wall of the uterus. It is reasonable to suppose that the presence of the tumours interferes with efficient contraction and retraction of the uterus, and so favours hæmorrhage; consequently the third stage of labour needs very careful management in such cases.

3. *Placenta prævia* is said to be more common with fibroids than the average, but if so the explanation is not clear.

4. *Sloughing of Fibroids* may occur during the puerperium, especially when they bulge towards the uterine cavity, or are pressed into the cavity by the contraction of the muscular coat. Such contraction would tend to lessen their blood supply, and if the fibroid was injured during labour, or was infected from the genital passages, rapid necrosis and sloughing would follow. A severe form of septicæmia may ensue, and such cases have been with difficulty saved by vaginal hysterectomy. Where the fibroid becomes extruded into the vagina after labour, there is a risk of inversion of the uterus which must not be forgotten.

5. *Obstruction to Labour* with the attendant liability to tonic contraction and rupture of the uterus. This complication has been placed last in our list, as it naturally leads to the consideration of the treatment to be adopted when a fibroid is found in association with pregnancy. Cases may be roughly classified thus: The fibroid

(*a*) *Must* obstruct labour.
(*b*) *May* obstruct labour.
(*c*) *Will not* obstruct labour.

There are some fibroids situated in the pelvic cavity which will not be drawn up by uterine contraction during the second stage of labour, and cannot be pushed above the brim of the pelvis by pressure from below; they are also too large to allow the passage of the fœtal head alongside of them. Such fibroids *must* obstruct labour. Examples of this type are the cervical fibroid, tumours growing out into the broad ligaments or beneath Douglas's pouch, and tumours arising from the back of the uterus low down which are either too large to be pushed above the promontory of the sacrum or are bound down by peritoneal adhesions. None of these are common types of fibroid tumour, and as regards the cervical fibroid it may be added that pregnancy is exceedingly unlikely to occur with it.

It is now generally agreed that where the obstruction is absolute the patient should be delivered at term by Cæsarian section. The fibroid can then be removed by hysterectomy, or it may be possible to deal with it by myomectomy. I think the best plan is to do the Cæsarian section first, and allow the mother to suckle the child until it is old enough to be weaned. The uterus and fibroid will then have involuted and can be dealt with more easily by operation. Of course, the risk of another pregnancy must be prevented in the meantime.

The second class of case in which obstruction *may* occur requires fuller consideration than the preceding class. Experience has shown that fibroids in the lower segment of the uterus in front almost always become drawn up during the second stage of labour so that the child's head is enabled to slip past the apparent obstruction. The same holds good for some tumours on the back of the uterus, although this is a much less favourable position. What degree of upward displacement will occur during labour cannot be foretold with accuracy, but if on examination under anæsthesia the bulk of the posterior fibroid is above, or can be pushed above, the level of the pelvic brim there is good reason to hope that it will be drawn up by the labour pains enough to permit delivery. Even so the case is not free from danger, because a posterior fibroid is liable to be injured by pressure against the promontory of the sacrum during labour and so give rise to trouble from sepsis during the puerperium, as already explained. Consequently, if your efforts to displace this posterior fibroid were not altogether successful, and the patient was already advanced in labour, it would be wise to make preparations for Cæsarian section. Watch the case carefully and remember that there may be more risk to mother and child from the use of forceps under these circumstances than from an abdominal section. For to drag the child past such an obstruction would probably injure or destroy it, and also might cause deep lacerations of the

uterine wall. Similarly, internal version is not to be recommended because there would be difficulty in getting down the arms which always become extended by version, and the delay in extraction of the after-coming head would involve the death of the child. In short, any form of vaginal manipulation or instrumental operation is difficult owing to the reduced space for working and the high position of the presenting part. Hence, attempts at delivery by the vagina may end in the death of the child, or in severe injury to the uterus or fibroid which in turn may involve serious illness to the mother.

To the third class, that in which the fibroid will not obstruct labour, our present patient belongs, and we will now return to her clinical history. When admitted to Queen Ward on May 15th, some five weeks after the first examination, I found that the condition of the parts had greatly changed. There was no longer any mass in the pelvic cavity behind and below the pregnant uterus, while through the abdominal wall a large tumour could be felt occupying the left hypochondrium and loin. It had a sharp well-defined edge, which at first suggested an enlarged spleen. There was a deep groove between it and the pregnant uterus, which now reached nearly to the umbilicus, and was more prominent on the right of the median line. The tumour allowed of considerable lateral mobility, independent of the uterus, which confirmed the opinion that it was a large single fibroid attached to the fundus uteri by a slender pedicle. The disappearance of the mass from the pelvis was explained by assuming that it was formed by the lower end of the present tumour, and that the fibroid had been carried up from the pelvis by the progressive enlargement of the uterus. Laparotomy confirmed the diagnosis in every detail. A high median incision exposed the pedicle of the fibroid which was attached to the front of the uterus a little below the extreme fundus. By external manipulations the fibroid was extruded through a small incision with very little disturbance of the pregnant uterus. The pedicle was compressed by a temporary ligature round it and then amputated by removing flaps of peritoneum and cellular tissue from the base of the tumour. These were carefully sutured together with fine catgut, and then the serous edges were inverted and united with a continuous suture. There were one or two small "seedling" subserous fibroids on other parts of the uterus, but none of them were important. The tumour weighed a little over two pounds, it was oval in shape and rather larger than the fœtal head. On section it showed extensive necrobiosis or red degeneration, the greater part of the tumour being of a dull red tint with areas of a decidedly greenish colour. However, it did not smell offensive, and there was no cystic change in it.

The patient was kept quiet by injections of morphia during the first two days. She had pain from flatulence but nothing suggestive of uterine action except a slight brown discharge. A good recovery ensued.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

An Index of Differential Diagnosis of Main Symptoms. By various writers. Edited by Herbert French. (John Wright & Sons, Bristol.) 30s. net.

Dr. French is greatly to be congratulated on the production of this work. It is indeed a most valuable addition to medical literature, and we are sure it will be welcomed on every hand. The method adopted by which individual symptoms are dealt with in the main text, whilst the index furnishes a guide to the diseases of which they are indications, is one which gives the greatest facility in solving a problem of differential diagnosis, and we have nothing but praise for the manner in which the aim of the book is carried out. The illustrations are plentiful, clear, and of obvious practical utility, whilst the printing and general get up leave nothing to be desired, though we fancy any increase in bulk of subsequent editions will necessitate division into two volumes.

Having made considerable practical use of the book, we feel confident in saying that it will prove increasingly useful and even essential to the majority of practising doctors. We would suggest that the subject of "Sudden Death" be given the honour of an article in the next edition.

Gazette Special Pathologist.

H. L., MANCHESTER.—This material has the structure of a sarcoma composed of large spindle cells in a fair amount of stroma. It is invading muscle and fibrous tissue, and considerable areas of it are undergoing myxomatous changes.

H. M., CLACTON-ON-SEA.—This is a very unsatisfactory specimen. It arrived quite dry and hard, but we have cut sections after soaking it in saline solution. There is no evidence of any malignant growth in it, we find only glands and vaginal epithelium. We wonder if it can be regarded as a representative piece, it is so small.

PATHOLOGIST.

Abraham Cowley.

I.—THE MAN.

On a general view, the middle of the seventeenth century does not appear a peculiarly favourable period for the advance of the arts and sciences. The atmosphere of political and religious heat might well seem too vicious and stifling for the growth of truth. And yet, in all the toil and clamour of the time, there were, indeed, some men who preserved well-balanced minds, and refused to sink their lives, fortunes, and opinions in what seemed to them the vagaries of political adventure. Retiring and earnest men, they kept alive the love of human letters, and nourished the faint light of science which was just then beginning to shine. There were others who perpetually longed for this intellectual life, but who were less fortunate in its attainment; and of these was Abraham Cowley, Doctor of Medicine, essayist, and poet, of whom I am briefly to write.

Cowley was born in 1618, the son of a man who was either a grocer or a stationer of Cheapside, and he had his early education at Westminster School. He seems to have been a precocious child, but certainly he was not one of those plants of early growth and promise which have no flower in after-life. He tells a story of himself at an early age finding a copy of Spencer in his mother's parlour, and delighting his opening mind with the romance and wonder of the story, and the "tinkling of the rhyme and dance of the numbers." The story is characteristic. Perhaps the charm of words was always rather more to him than the charm of things. At school, like many other children of genius, he was "so much an enemy to constraint that his masters could never prevail upon him to learn the common rules of grammar"; and I think his masters must have been infinitely surprised when he did a thing which, surely, few schoolboys have ever done before or since—he published a volume of verse while still at school. He was then fifteen years old.

Cowley went up to Trinity College, Cambridge, and in due time became a fellow. And now his troubles began. As we shall see, it was always the blundering world, which he so greatly detested, that stepped in time after time to thwart his innocent ambitions. In 1643 Cowley, now as always a very sincere Royalist, was ejected, with other members of the University, from Cambridge, for refusing to sign the Solemn League and Covenant. He made his way to Oxford, and from Oxford to France, as secretary to the Earl of St. Albans. Here for ten years he was employed in ciphering and deciphering the letters that passed between the king and queen.

After the Restoration he returned. But his evil fortune haunted him again, and he was arrested in mistake, it appears, for some more important prey; and in spite of the mistake, and of the evident loyalty of the prisoner, he was only released on the promise of an eminent physician, Dr. Scarborough, to go bail for him in the £1,000 demanded.

It seems that this Dr. Scarborough afterwards persuaded Cowley to interest himself in medicine, and a little later he took his medical degree at Oxford. It is probable that he was more interested in the science and theory than in the art and practice of medicine. Its endless intellectual interest doubtless attracted the lively disposition of his mind, while in his love of experimental research he was eminently the child of his age. For after the Restoration the public were weary, for a time, of the tumults of party politics, and looked eagerly for a new toy. Harvey and Newton, working alone above the crowd, all unconsciously set the fashion; and it was so universally followed that all the fine ladies and brisk young bloods about the Court were fain to join in the rather naïve and amusing rush after air pumps and telescopes, loadstones and barometers. Cowley's first contribution to the scientific Materia Medica of his day took the form of four books of Latin heroic verse on the qualities of herbs.

There is no evidence that Cowley ever attempted practice. He was probably too introspective, too subjective, as we may say, to hope for much success as a general practitioner, even in the seventeenth century; and he had none of that genius for practice which characterised his great contemporary Sydenham. But that he was genuinely interested in the advancement of science is shown by his writings, of which I shall have something to say, and by his connection with the Royal Society. His proposal of a Philosophical College started the idea of the Society; and in 1660 his name appears in the list of eminent scientists who were connected with its foundation.

But all this time Cowley was longing for retirement from the world which had treated him so badly. He was heartily weary of London. Again and again he had had to bear the arrows of his outrageous fortune. Statements in his poems and plays had been misunderstood to mean a decrease in his loyalty; and when he sought for some return for all his service to the royal house, he was bluntly told that his pardon was his reward. It was not till 1661 that the efforts of his friends obtained for him a lease of the Queen's lands in Surrey. He retired into the country, first to Barn Elms and later, in 1665, to Chertsey; and now at last it would be natural to suppose that he enjoyed a period of uninterrupted peace to pursue his curious and learned fancies. Alas, poor Cowley! How he was tormented even in his retirement appears from a letter written shortly after his arrival at Chertsey to his friend and biographer, Dr. Sprat:—

"The first night I came hither I caught so great a cold, with a defluxion of rheum, as made me keep my

chamber 10 days, and two after had such a bruise on my ribs with a fall, that I am yet unable to move or turn myself in my bed. This is my personal fortune here to begin with; and besides, I can get no money from my tenants, and have my meadows eaten up every night by cattle put in by my neighbours. What this signifies, or may come to in time, God knows; if it be ominous, it can end in nothing less than hanging. . . . I do hope to cover my late hurt so far within 5 or 6 days, tho' it be uncertain yet whether I shall ever recover it, as to walk about again. . . . I write this in pain, and can say no more."

Cowley had expected to find in the English country of Charles II.'s time a sort of Arcadia, or forest of Arden, where "they fleet the time carelessly, as they did in the golden world." So sadly was he disappointed. But it is pleasant to know, as we do know from his essays written in his retreat, that he kept his love of learning, and of science, and of unsophisticated human nature.

He was never married. His experiences appear to have been unfortunate in this respect as in so many others, and his very love affairs were caught up in the vortex of the great whirling world which he had renounced. "If," he says, "if I were to fall in love again (which is a very great passion, and therefore, I hope, I have done with it) it would be, I think, with prettiness rather than with majestical beauty." We cannot wonder that the young ladies of Chertsey were not attracted to this strange man with his unaccountable experiments and his more unaccountable verses, which, in spite of his natural simplicity, were as involved and subtle as they could well be. It was scarcely a compliment to say, as he did, that that man was surely a great loser who would exchange his own mental image of his beloved mistress for her actual presence.

But he was rich in friendships with the great literary and scientific men of his day. We have seen his obligations to Dr. Scarborough, a physician of eminence, and the attachment of the two is the more notable, since the physician was a Parliament man, while Cowley was a devoted though unfortunate Royalist. Dr. Scarborough introduced him to Harvey, who, declining as he now was into the vale of years, took a kindly interest in the younger man. On Harvey's death, Cowley produced an ode, which is supposed to be among the finest productions of his muse. We should like to be sure that he knew Sydenham, for the two would have made an excellent complementary pair. Also, we should like to think of him paying a visit to the gentle Norwich physician, Sir Thomas Browne. It is not, I hope, an unwarrantable exercise of the fancy to picture them together, kindred spirits in an alien time, Browne showing Cowley his collections of curious plants and antiquarian remains, and blushing at the levity of his own mild jests.

Though the country did not turn out to be the ideal he expected it to be, doubtless he was happier there than he had been in the town. On a hot day in the summer of 1667, after staying out too long with his labourers in the fields, he fell ill. Within a few days he died, leaving behind him a blameless memory, and troops of friends to keep that memory green. *Requiescat in pace*, for it was peace that he loved.

II.—His Writings.

Cowley's place in literary history is a curious one, and he has been well called the Janus of his time. Taking his poetry first, we find that his contemporaries placed him upon a pedestal as the greatest poet of his time, and one of the greatest of all ages. They forgot, or refused to notice, the old blind Puritan of Bunhill Fields, who was even then preparing his perpetually enduring monument of verse. Cowley's odes and lyrics were the attempted revivals of an earlier time; they copied the mannerisms of the Elizabethan without catching their inspiration. So that his poetry is now remembered only by professors of English literature. It is somewhat surprising to find a man of such essential simplicity of nature writing in a style so complicated and exhausting; but there are some pieces scattered here and there among the collection which seem to have been inspired by a clearer-headed muse, and which show him as in his latter days he truly was, a lover of birds, and trees, and the rich and green and ancient countryside, which was then, as it still is, one of England's peculiar glories. To one who has a liking for Cowley himself these pieces are not uninteresting. For the rest, they have been generously buried in oblivion, where they are likely to remain.

With his prose it is delightfully different, and we feel at once that he is at home in this cool and homely element. Here he shows us his forward face, and is master of the ease and sense of the eighteenth century, without a touch of what, for want of a better word, we may call its artificiality. He is one of those who makes you think, until you come to try, what a simple easy thing it must be to write simple, lucid prose. His essays, written in his retirement, have ease, vigour, and natural eloquence, as the occasion requires; and, above all, they have strong personal charm. The very titles are characteristic: *Of Liberty, Of Solitude, Of Obscurity, Of Agriculture, The Garden.* You feel at once, when you are reading Cowley, that you could not be in better company.

One of the most interesting of his essays is the piece which gave rise to the foundation of the Royal Society. In his zeal for the organisation of Research work he published his *Proposition for the Advancement of Experimental Philosophy*, in which he advocated the foundation of a college of illustrious men, to be endowed by the nation, for the advancement and teaching of natural science. The details were never

practically followed out, but they form very quaint and interesting reading, and may, perhaps, be suggestive even at this late day. The resident staff of the college was to be made up as follows:—1. Twenty philosophers or professors. 2. Sixteen young scholars, servants to the professors. 3. A chaplain. 4. A bailiff for the revenue. 5. A manciple or purveyor for the provisions of the house. 6. Two gardeners. 7. A master cook. 8. An under-cook. 9. A butler. 10. An under-butler. 11. A surgeon. 12. Two lungs, or chymical servants. 13. A library keeper, who is likewise to be apothecary, druggist, and keeper of instruments, engines, etc. 14. An officer, to feed and take care of all beasts, fowl, etc., kept by the college. 15. A groom of the stable. 16. A messenger, to send up and down for all uses of the college. 17. Four old women to tend the chambers, keep the house clean, and such like services.

The annual allowance for this very comprehensive company having been fixed, there follows a description of the buildings of the college, which was to consist of "three fair quadrangular courts, and three large grounds, inclosed with good walls behind them." These courts contained, respectively, the professors' quarters, the school buildings, and the kitchen and other such offices, "with great laboratories for chymical operations, and lodgings for the under servants." All sorts of details were considered, and places found for zoological and botanical gardens, dissecting rooms, and deep underground vaults, "for experiments proper to such places."

Next the general conduct of the professors and scholars was to be regulated by a fixed list of rules, which are highly entertaining to read. One or two examples must suffice:—

"That of the twenty professors, four be always travelling beyond the seas, and sixteen always resident, unless by permission upon extraordinary occasions; and everyone so absent, leaving a deputy behind him to supply his duties."

"That the professors resident shall allow the college twenty pounds a year for their diet, whether they continue there all the time or not."

"That the popular and received errors in experimental philosophy (with which, like weeds in a neglected garden, it is now almost overgrown) shall be evinced by trial, and taken notice of in the public lectures that they may no longer abuse the credulous, and beget new ones by consequence or similitude."

"That no professor shall be a married man, or a divine, or a lawyer in practice; only physic he may be allowed to prescribe, because the study of that art is a great part of the duty of his place, and the duty of that is so great, that it will not suffer him to lose much time in mercenary practice."

"That they shall all keep an inviolable and exemplary friendship with one another; and that the assembly shall lay a considerable pecuniary mulct upon any one who shall be proved to have entered so far into a quarrel as to give uncivil language to his brother professor; and that the perseverance in any enmity shall be punished by the governors with expulsion."

Cowley ends his proposal with an eloquent defence of the practicable nature of his scheme: but, indeed, he was not very hopeful of the result. "The only question," he concludes, "is, whether it will find friends enough to carry it on from discourse and design to reality and effect; the necessary expenses of the beginning (for it will maintain itself well enough afterwards) being so great (though I have set them as low as is possible in order to so vast a work), that it may seem hopeless to raise such a sum out of those few dead relicks of human charity and public generosity which are yet remaining in the world."

I have tried to give some impression of the man and his work as he appears across the two intervening centuries. The picture is of a character not especially heroic, not especially great at all; nor, on the other hand, poor-spirited or effeminate; a man of thought rather than of action, a lover of nature, of science, and of all solid learning. A common type, it would appear, but such men as Cowley are not common even to-day, and they were far less common in the turbulent seventeenth century. He deserves a high place in the memory of his profession.

Society and Disease.

[We cannot accept any responsibility for the views expressed in this article, with which we are in entire disagreement.—ED., G.H.G.]

IT was William Morris, I believe, who declared that no man was fit to be another man's master. Like the majority of epigrams the statement is true or false according to the interpretation thereof. The working-man who, in spite of Mr. Well's asseveration to the contrary, has not yet acquired the faculty of unbiased criticism, is content to translate it clumsily and literally, thereby converting a profound truth into a fatuous exaggeration.

It is undoubtedly true that many employers of labour, many so-called masters of households, are unfitted to control the actions of a herd of swine, much less of the men and women in their employ, but to deny the propriety of the natural division of mankind into rulers and servants is to ignore the lessons which the social evolution of man has taught us.

The true Socialist, of course, realises this, and dreams of a world in which men of culture, intellect, and delicate instincts shall be responsible for the efficient working of the whole community; and he holds no brief for the lower classes, who should be of relatively small importance in that community.

At the present time, however, practically all our legislation is not only directed towards the satisfaction of the ignorant demands of the rabble, but is practically at the latter's mercy. It is, to say the least of it, amazing that those in authority do not realise the false economy of attempting to improve the mental and physical condition of the more primitive type at the expense of the more specialised. Moreover, a moment's thought will convince any intelligent person that to impose no restriction whatever on the multiplication of the former while sheer force of circumstances compels such restriction among the latter, is diametrically to oppose what seems to be the main object of evolution, namely, the production of the highest possible type.

The argument sometimes adduced that national evolution will continue on its own lines, independent of our interference, is a futile one; for the conditions under which we live are purely artificial, in that the poor, the sick, the mentally feeble, who would, in the natural order of things, go to the wall, are supported by their more fortunate fellows, whose own welfare thereby suffers enormously.

We thus encourage the persistence of the weak and ignorant and hinder the advancement of the strong and intelligent. The remedy is, of course, obvious: First, let the State sacrifice everything to the demands and requirements of the upper classes (using the word "upper" to imply good breeding and mental superiority); secondly, let it enforce cleanliness and physical health among the lower, and so render them efficient to do the tasks allotted to them by their superiors; and thirdly, let it stamp out, once and for all the confirmed criminals, the hopelessly insane, and the wasters.

I am, of course, aware that such propositions have been made time and time again; I am equally aware that they have as often been discussed as impossible and impracticable. But I venture to maintain they are worthy of the kind. The "sickly sentimentalism" that characterised the mid-Victorian age, to my mind the most decadent age in our history, is gradually dying out, but it is still rampant enough to prove a very serious obstacle to the reform of our laws, customs, and ideas for which there is such urgent need at the present day.

The sentimentalist holds up his hands in horror at the suggestion of the lethal chamber, yet condones the execution of a useful and respectable member of society for justifiable murder, or for the fatal result of a temporary passion, and rejoices in the wholesale destruction of his country's enemies—at a distance and in cold blood—in time of war. It never seems to occur to him that the deadliest enemies his country can possess are those who tend to lower the mean of its mental and physical status, and those individuals who, by actual contact or the result of heredity, multiply disease a hundredfold. I am not so callous or so impracticable as to suggest that the stigma of disease should sign a man's death-warrant; that, for instance, the person with advancing phthisis should at once become a candidate for the lethal chamber. But I do advocate that those who, from physical, moral, or mental disability are a drain on the financial resources of the State should, instead of being forced to live in unhappy and useless confinement, be removed from a world into which it were better they had never been born. Needless to say that old age, *per se*, is not suggested as a cause of such disability.

Again, the question of hopeless disease must necessarily obtrude itself upon the consideration of every medical practitioner. It is a question upon which some discussion was aroused a short time ago by certain remarks of M. Maeterlinck. He asserted that it was the duty of every medical man to ensure an easy death for his patients, and that it was rank cruelty to allow anyone to suffer for the sake of a brief protraction of life. As was natural, the usual worthless arguments were brought forward in opposition to such ideas. It was stated that no one—not even a doctor—could be certain of the hopelessness of any case, and that it was the duty of the medical attendant to prolong life as long as possible. Such arguments indicate ludicrous ignorance and a jaundiced point of view. Granted that in certain cases even an expert gives a mistaken prognosis—especially in acute diseases such as typhoid and pneumonia—in at least 90 per cent. of cases there is never the slightest doubt about the chances of recovery in any particular instance. And where there is no hope of recovery, and the patient is rendered useless and unhappy by his affliction, it is, without any shadow of doubt, the duty of his doctor to give him morphia in rapidly increasing doses. Needless to say, that such a line of procedure would only be entered upon after a careful consultation with other medical men.

I would go farther and say that all cases of chronic disease in children and adults, which are prevented from living a useful and enjoyable life and are a burden to others, should be treated likewise. Nothing is more pitiable than the enormous waste of expensive drugs that obtains in our hospitals and infirmaries in cases that are known to be hopeless from the day of their admission.

"The future of medicine is prophylaxis"—a truism no doubt, but one that is all too often forgotten. Therefore, let the medical faculty expend all its energies on the prevention rather than the cure of disease, and sacrifice, if necessary, the interests of the adult and aged to those of the children. And let the State concentrate all its attention on the welfare of the upper classes and the subjection of the lower to the will of the latter. By these means alone can true progress become evident.

H. W. B.

Rochester.

Notes of a Visit to the Mayo Clinic, May, 1912.

By HILDRED B. CARLILL, M.D.

A VISIT to the Mayo clinic is rapidly becoming a not uncommon event in the history of medical men. Not a few of our leading surgeons, Guy's men among the number, have gone over to Rochester, and it is certain that the future will bring visitors in increasing numbers.

I do not remember to have seen in England any notes by those who have been fortunate enough to make the journey, and it is with a thought for the many men who must necessarily forego this experience that I am sending to the GAZETTE an account of my recent visit. A few details of the journey will be found for the benefit of those who may be contemplating a similar holiday.

It was not until I reached Chicago on my way from the Pacific Coast to New York that I found that I was able to spend a few days at Rochester. The distance from New York to Chicago is nearly 1,000 miles. The best trains do the journey in 18 hours, starting from the Grand Central terminus, and arriving at Chicago at 9 o'clock in the morning. The distance between Chicago and Rochester, Minnesota, is about 350 miles. The night train leaves the North Western terminus at Chicago at 7.45 p.m., and should arrive at Rochester at 8.20 a.m. the next morning. Distances are so great that night travelling becomes imperative when time is limited.

As soon as one is on the Pullman car at Chicago the fact becomes evident that one's companions are either patients, patients' friends, or doctors; one may be said to have already arrived at the suburbs of Rochester. On my journey the ticket collector, having come to the conclusion that I was not going to Rochester for operative treatment, announced his conclusions and proceeded to give me details of his six-year old abdominal operations, ending his remarks with, "My compliments to Doctor Charlie, and tell him I am a different man. You'll enjoy yourself, doctor, that you will. They're brave boys."

In the smoking car the talk is of surgical operations, of the doctors' skill, and the reputation made by it, of the spelling of diagnostic words, laboriously, and in many cases, ludicrously pronounced. In the dining car it is unlikely that you will find a seat from which you cannot make a diagnosis of Graves' disease in two or three cases, and among the rattle of the dishes you will hear many quaintly expressed statements of opinion from leaders of amateur medicine. I made a mental note of the following from a lady: "There are two kinds of goitre; one is a big thyroid gland, and the other is what they call exophthalmic. One sort has pus, but the other has capsule like mine had."

It must not be supposed that by narrating such an incident I am pointing fun for the mere sake of doing so. The journey is too full of tragedy for that. But if a traveller is anxious to escape from the companionship of "shop," he can gather from what I have said that it may be advisable to select a different train. The night train is convenient for patients and visitors travelling from the east, and I fancy it attracts more of them than do the day trains.

The rain came down in torrents that night, and early in the morning we were told that we were already four hours late owing to the flooded state of the track. At 11 o'clock in the morning we arrived at the scene of a serious "wash-out." The railway bridge carrying three sets of rails over a swollen branch of the Mississippi had been washed away a few hours previously, carrying its steel girders and its twisted rails into the flood below. The waggon bridge near by had suffered a similar fate, and we had a tramp of a few miles before we could cross the river. Then for a long time, sitting in groups upon our baggage by the side of the mud-washed line, and watching the pile-driver brought into action for the temporary repair of the bridge, we waited for the coming of the relief train.

In the mixing up of the passengers, patients, hitherto unobserved, were now noticed. A man passed carrying an enormous tumour upon his neck. A voice behind me told him he would soon be saying good-bye to it, as the doctors were very clever in such cases. "They're just dandy." An operation scar over the mass, together with other features, gave only too clearly the clue to the probable diagnosis.

By and bye the train cautiously arrived, coming from the direction of our destination, and next to me I found a philosophic doctor from Canada who had decided to take the opportunity afforded by bringing a patient to the place, of having his own troubles adjusted. He told me that he had suffered badly from smart hæmorrhages, one when he was driving alone on the prairie, and that he could put off his gastro-enterostomy no longer. Shortly afterwards he asked a new-comer whether he was a doctor? "No, I've enough trouble without being that." We all laughed. At the hospital I found that his young daughter had a sarcoma in her naso-pharynx.

Everyone was glad for himself and his companions when the train at last pulled up at Rochester. This was at 5 o'clock p.m., and we were over eight hours late. Rochester is a compact country town of less than 8,000 inhabitants. The shady avenues of maples and elms, the flagged pavements, set between grassy borders, the bungalows and wooden houses, unfenced and separated by grass paths, the hammocks and the chairs set outside, all these characteristics of the American country town are found here.

The special features of its medical institution are—

1. Advice and treatment are for paying patients only—from any class in the social scale. Charges are adjusted according to means.

2. The hospital and out-patient department (offices) are separate and distinct.

3. Specialists in all branches are working daily in the same building at one and the same time.

4. Patients are examined and a diagnosis made before they are sent to the hospital.

5. The period before and after operation takes place in hotels and lodging-houses, which are visited by the doctors. Thus the stream of patients through the hospital is always flowing.

The offices are "down town," and occupy the ground floor of the masonic building. They are divided into a large number of examination and waiting rooms, clinical laboratories and secretarial departments. The increasing amount of work has exceeded the capacity of the present premises, and a new building is in course of erection.

The doctors, who number nearly twenty, and who include an Irishman and a German, are at work here daily from 8 a.m. till 6 p.m. A patient on arrival is first given a number, and then, having stated his symptoms, he is sent to the corresponding department. From here he visits the rooms of any of the other doctors whom it may be necessary to consult. The case notes are brief and are kept on cards. The examination of urine, blood, etc., is made by a staff of trained lady assistants, who do their work with great speed and accuracy. These ladies are neither medical students nor doctors.

Patients for whom a second opinion is required or who are to be admitted—the latter are only those for whom operative treatment is necessary—wait to see the hospital surgeons in the afternoon. When the surgeons arrive they are able to find out at once in which rooms they are wanted by means of a signalling arrangement of electric coloured lights which are over the doors. They then examine the patients with the out-patient staff, and any further notes of diagnosis, etc., are entered on the card, which then contains in a concise form all the necessary particulars. The patient then goes to another department where he shows his card. If the doctors have finished with him, he is told what fee is due from him. The doctor has already touched on the subject with the patient, and has noted a fee in a corner of the card. If the patient is to be admitted, he is told the probable time which will elapse before his bed will be vacant. This is usually a matter of a few days. He can now arrange with the Sister any details he may wish about a private room or special nurses, and he can inquire where he shall spend the interval before he is admitted, in what hotel or in which lodgings. His name and the address to which he is going are now taken, and he is told that Dr. So-and-so will visit him. All admissions are made strictly according to number, and the rich have no precedence over the poor. The fees for operations are adjusted according to the result of an inquiry into the financial state.

Trained nurses live in several of the hotels, which also have operating rooms and diet kitchens. Surgical interference which may become necessary before or after the operation can in this way be adopted.

I should like to emphasize the fact that no patient is seen at the hospital unless he has been through the routine examinations "down town." When he reaches the hospital the doctors are well acquainted with his needs, and his operation has been decided upon. I was told that should a message about an urgent case be received after office hours, arrangements would be made to examine the patient at the railway station, before sending him to the hospital.

The X-ray department is used only for radiography. The apparatus is worked by the examiner in an adjoining room, a view being obtained through a glass window in the dividing wall. Fluoroscopy is not at present performed. Minor operations are performed at the offices, each patient in his own department. An anæsthetist is in attendance, but nearly everything is done under local anæsthesia. Enucleation of tonsils, removal of adenoids, and nasal septa are all performed under cocaine.

St. Mary's hospital was founded in 1889, and is conducted by the Sisters of St. Francis. A modern building of red brick, fronted by many beautiful trees, it stands in some fifty acres of ground about a mile from the centre of the town. With accommodation for forty-five patients in the beginning, the hospital has been frequently enlarged, and now has over 200 beds for the use of patients. Fifty or so of these are in private rooms, suites, etc., for which the weekly charge is $18.00 and upwards. These are under the care of graduate nurses. The remaining beds are in a number of wards which are in charge of student nurses under the supervision of Sisters. The wards are small, the largest holding ten patients. The weekly ward rates are from $8.00 to $14.00. By an arrangement of white screens surmounting two sides of each bed, each ward is divided into so many cubicles. The country around the hospital affords beautiful views, and there are many sun parlours attached to the wards. Patients are allowed to see their friends every day.

On the fourth floor are the four operating theatres, communicating with each other, through sterilising rooms, by means of swinging panels. Adjoining the theatres is the laboratory for the immediate diagnosis of specimens. Here also sections are cut of all pathological material removed by operation. On another floor is the cystoscopic department in the charge of two specialists. During the year 1911, 1,383 cysto-

scopic examinations were made, with 896 ureteral catheterisations.

There are four hospital surgeons, one for each theatre. They are assisted by a staff of doctors who have had previous surgical experience, and who are attached with their chief to his own theatre. Dr. William Mayo has had the same chief assistant for over 20 years—a Sister who gives the impression of being fully competent to perform any operation which may be suggested. I watched her assisting his brother, Dr. Charles Mayo. The resident staff are six in number. The anæsthetics are given by non-resident ladies who have not had medical training. They do their work in a way which I have never seen equalled. In cases of operations on the eye—and a great deal of such work is done—the ophthalmic surgeons attend for the purpose. All other work is done by the general surgeons.

I will now try and give some idea of a morning's work in the theatres. The surgeons commence operating at 8 a.m., by which time the patients are ready. Ether by the open method is almost invariably the anæsthetic used. In the fifty cases which I saw this was the sole anæsthetic, and I may be allowed to repeat that it is difficult to believe that ether or any other anæsthetic could be better administered. The surgeons' clothes are changed for white linen coat and trousers. I did not see a collar or a tie. Caps and respirators are worn, and rubber gloves in every case. It is not for me to speak of the dexterity and speed of the surgeons' work; it must be seen to be believed.

The assistance of the dressers, mechanical in its accuracy, and anticipating every want, is apparent at every turn. Operations continue until one o'clock, or whenever the list is completed. The theatres are rarely busy after 1 o'clock, and, indeed, are sometimes deserted by mid-day. Six operations or so are down for each room, about twenty-four in all being the average number. Each case has been previously examined by the surgeon, and they all know what operation has been decided upon. Thus, it not infrequently happens that when "A" is delayed over a case, "B," who may be free for the moment, will start on "A's" next case. When "A" is ready, should the operation be not too far advanced, he will take the case over. The details of such a change reminded me of the performance of jugglers at the music-halls who change with extraordinary precision into each other's shoes. It is impossible to believe that operative surgery can be performed at a greater speed and with less delay.

A notable feature of the morning is the figure of the pathologist noiselessly removing material, returning in a very few moments with his report. An assistant reads out brief notes of the case, and during the operation the surgeon demonstrates its various steps. Around two sides of each theatre are stands for twenty or thirty onlookers. These are full. In some cases the surgeon will ask one or two to put on gowns and stand at the table. This is a very great advantage, as they can go from room to room and see all that is happening. It is a privilege which is much sought after, and to obtain it I would advise a visitor to be armed with one of two things: either an introduction to Dr. Mayo, which I fortunately had; or—a "European" reputation.

There were one or two things about the theatres which I specially noticed. I do not suggest that they are not seen in England, but in most cases they are new to me. The operating tables are cleverly constructed, being movable in any direction upon a large central pivot. To the table is fixed a vertical rod bearing a tray for the instruments, and this remains horizontal in any position of the table. Another device is a folding rack which is also fixed to the table, and which can be swung into a vertical position and covered with a closely-fitting sterilised towel. This separates the patient's face from the area of operations upon the neck. In the corner of each theatre is a glass-fronted bracket cupboard containing a light. When photographic plates are inserted the details of them are visible from any part of the room. From the ceiling is suspended a long mirror hanging at an angle which allows a view of the operation to be reflected to the onlookers on the stand. Water is turned on by a pedal apparatus, and the hot water which leaves the tap through a gauze covering is already sterilised, and can be used readily during the course of an operation. There is a considerable dearth of the customary bowls of lotion, and with the exception of a mercury solution for washing the hands, I saw none. Before operations commence, all the necessary instruments and dressings for the morning's work are placed in position in each theatre. These are supervised by a Sister. Tapes are attached to the larger dressings so that the forceps which hold them may be out of the way.

No special preparation of the patient is adopted, and my Canadian friend, who was at the hotel with me for a day or so, walked to the hospital after a light breakfast, and was on the table half an hour later. The site of operation is not touched until the same morning. The skin is then washed with soap and water and shaved. Immediately before operation, after the patient is in the theatre, the skin is rubbed with benzine and painted over with iodine. In nearly all cases the wound is closed with a subcutaneous suture of catgut. This obviates the necessity of removing stitches. The wound is again painted with iodine and covered with a pad of gauze, fixed by strips of adhesive strapping. Wool and bandages are not often used. The anæsthetic, "open ether," is administered from its commencement in the theatre, and in most cases the patient is ready to be cut in three minutes. During the two mornings on

which I was in the theatres the hours of work were five in one case and four in the other. Three theatres only were in use, owing to the absence abroad of Dr. William Mayo. During these nine hours 49 major operations were performed. The details are as follows:—Exophthalmic goitre, 3; goitre, 6; abdominal hysterectomy, 3; hæmorrhoids, 2; ununited fracture of patella, 1; ununited fracture of femur, 1; vesical calculus, 2; appendicitis, 7; tuberculous cervical glands, 3; nephrectomy, 1; gall-bladder affections, 4; mastoid disease, 2; complete laceration of perineum, 2; resection of intestine, 1; shortening round ligaments, 1; gastro-enterostomy, 7; umbilical hernia, 2; removal of upper jaw, 1.

Operations are performed through generous incisions, and Dr. Mayo told me that whenever the peritoneum is opened it is customary to look for Mr. Lane's kink in the ileum. In selected cases Mr. Lane's teaching in regard to bone and intestinal surgery is followed, and it is not necessary to stay for any length of time to hear frequent allusions to the work of this surgeon.

Connected with the offices is a medical library which was presented by the Mayo's for the use of the doctors. A meeting of the whole staff is held here every week, at which, among other things, any member who has recently returned from a holiday is expected to make some communication. Each of the doctors is enabled to travel during some portion of every year for educational purposes.

In another building in the town there is a club for visiting doctors. This meets every afternoon, and a president for the week having been elected, four men are appointed to act as reporters, one in each theatre. At these meetings visitors are able to discuss and to learn about those things respectively which they have and have not seen.

There are several hotels in Rochester, and before I end these notes it may be not out of place to say that the visitor will be well treated in every way at the Kahler. It is well to reserve one's room in advance.

I hope that this account will not prove tedious to the reader and that he will not think that I have entered too fully into details. I have tried to show how remarkable is the surgical organisation which has been built up in this far away American country town, and I hope that many may have the good fortune to enjoy the educational resources and the generous hospitality of the Mayo clinic at Rochester.

Birth.

BOOKLESS.—On May 22nd, at Hurley Lodge, Honor Oak Park, S.E., to the wife of J. S. Bookless, M.B., B.S., a son.

London Bridge and the Borough in the Eighteenth Century.

". . . *the Pantheon, the Grotto Gardens,* THE BOROUGH, *and such places where the nobility chiefly resort!*" She Stoops to Conquer, 1773.

I.

THE only bridge between Southwark and the City that Thomas Guy ever knew was that on which the houses formed a street continuous with Fish Street Hill on the north and with the Borough High Street on the south. Situated 34 yards eastward of the present bridge, the roadway of the northern approach ran past the western porch of the church of St. Magnus the Martyr, actually beneath that pedunculated clock we still may see. At a later date, in 1760, the road was widened by piercing the base of the steeple tower to form a footway on that side.

At the period of which we are speaking two of the most notable buildings formerly to be seen upon the bridge had disappeared. The Chapel of St. Thomas was entirely destroyed, except for its crypt, which had become the basement of a paper warehouse. Nonsuch House, a highly ornate building, all of wood, which had been made in sections in Holland, and erected in Henry VIII.'s day, had been removed before the arrival of the eighteenth century. At the central part of the bridge was placed a drawbridge that allowed the passage of the taller vessels from the Pool to the river above. At three points the roadway opened out from between the enclosing houses to form squares that overlooked the river on either side. In one of these, the story goes, Thomas Guy, leaning over the parapet to watch the tide running like a millrace between the narrow arches of stone, was drawn back by a passer-by who, fearing that he contemplated suicide, sought to turn him from his purpose, and, as a final argument, pressed a guinea into Guy's hand. Guy, as soon as he had convinced the stranger of his error, returned the guinea, and obtained his would-be benefactor's name. In later years, Guy, learning that his new friend had become bankrupt through no fault of his own, seized the opportunity to return his former kindness by re-establishing him in business.

There is a vista of old London Bridge in the sixth of the "Marriage à-la-Mode" pictures by William Hogarth, who, at one time, himself inhabited a house on the bridge. In his earlier days Hogarth had worked with John Bowles, the engraver, Guy's neighbour on Cornhill, to whom we owe the earliest of the engraved views of the hospital. Later, it was Sir James Thornhill, who painted the ceiling-piece in the

Court Room representing the apotheosis of Thomas Guy, who was Hogarth's painting master, and, *malgré lui*, his father-in-law.

The Great Fire of 1666 had destroyed many of the houses at the northern end of the bridge, but, by a fortunate chance, a gap left by a previous fire had prevented it from extending to the remainder of the houses on the bridge, and so carrying its work of destruction into Southwark.

So ruinous had the buildings become that in the earlier part of the eighteenth century the City Corporation set to work in 1756 to remove the houses and to repair the bridge, which remained until the present structure was undertaken in 1824.

At the Surrey end, St. Olave's Church (in its present form dating from 1739 only) was separated from the roadway by a building known as the Bridge House, in which timber and stones necessary for repairing the bridge were stored.

In the eighteenth century the term "Borough High Street" was limited to the roadway between the bridge foot and the southern extremity of the "island" of buildings, now occupied by the two big banks, which lies between the High Street on the east and Counter Street on the west. From this point (on a level with the "Tabard" inn) to St. George's Church the street was known as St. Margaret's Hill. Beyond the church southward to the "Elephant and Castle" (the "Pig and Tinderbox" of the facetious Pierce Egan in the early nineteenth century) the road became Blackman's street.

About the centre of High Street (the present post office frontage) stood St. Thomas's Hospital until the year 1862, when practically the whole of the buildings were pulled down to make room for the railway.

It was founded in 1215 by Peter de Rupibus (Pierre de la Roche), Bishop of Winchester, to replace an almonry of the priors of St. Mary Overie. In 1551 the City Corporation purchased the Manor of Southwark, and in the year following obtained from Edward VI. a charter. It escaped the Great Fire of 1666, but lost many of its properties therein. Its estates were further crippled by two subsequent fires in Southwark, so that in 1699 a public subscription became necessary, and rebuilding was undertaken and completed in 1732.

There were three quadrangles extending from west to east, parallel with St. Thomas's Street. Fronting on the street was a handsome pair of large iron gates with doors on either side for foot passengers, and fastened to the stone piers on either side a statue representing one of the patients. The front square had a colonnade running round the three sides, and beneath were benches whereon the patients might sit. On the south side beneath an empty niche was an inscription to Thomas Frederick, Esq., governor and donor of the three wards on that side, anno 1708. Opposite a similar inscription ran thus:—

"This building on the North Side of this Court, containing 3 wards, was erected at the charge of Thomas Guy, Esq., citizen and stationer of London, a worthy governor and bountiful benefactor to this hospital, 1707."

Facing the street, the middle of the front quadrangle formed the main frontage. At the top was a clock under a small circular pediment, and beneath it in a niche was a statue of King Edward VI. with a gilt sceptre in his right and the charter in his left hand. A litle lower two smaller niches contained figures of a man with a crutch and of a sick woman. Beneath these figures two other niches surmounted by festoons and separated by the royal arms, contained figures of a man with a wooden leg and of a woman with her arm in a sling.

This aspect is well shown in the engraving from Maitland's History of London, 1739, which gives a perspective view of the three quadrangles looking eastwards from the Borough, and showing the square tower of St. Thomas's Church on the right hand.

From the front quadrangle a way under a spacious passage down several steps brought one into the second court, which was "more elegant than the former." It was adorned with Ionic pilasters, and had a colonnade running round it except on the north side, where the chapel was situated. St. Thomas's Church was originally built to serve as a chapel to the hospital, but had been requisitioned for a parish church, a special place of worship being erected within the hospital proper. The handsome doorways to be seen in St. Thomas's Street in the enclosed ground next the church are those of the official residence of the Treasurer of St. Thomas's which formed part of this second quadrangle. A portion of the colonnade still remains at the back of the house. In the centre of this court stood a handsome brass statue of Edward VI., by Scheemakers, erected at the expense of Charles Joyce, Esq., in 1737, a companion statue to that of our own founder by the same sculptor. This quadrangle with the statue is the subject of the majority of the smaller copperplate engravings of St. Thomas's. A passage through the east side led into the third and oldest of the squares. It was surrounded by the usual colonnade, above which the walls were ornamented by slender pilasters with very small Ionic capitals. A statue, 1714, of Robert Clayton, Esq., Lord Mayor, in his robes, was placed in the centre of the court. The hospital in 1776 possessed 19 wards and 474 beds.

Besides building and furnishing the three wards above mentioned, Thomas Guy for a period of 11 years contributed over £100 a year to the hospital funds, and shortly before his death, prior to founding his own institution, removed the old front and rebuilt the

two large houses at its sides and erected the iron gate between them at a cost of £3,000.

Of Guy's Hospital at this period a brief notice must suffice. The building was commenced in 1722. and the roof was just on when Guy died in September, 1724, and a week later patients were first admitted. The hospital then consisted of the two quadrangles and the central colonnade of Guy's House, as represented in the large engravings of John Bowles (1725). The statue by Scheemakers was commissioned in 1731. The east wing of the front quadrangle was begun in 1738. The small copperplate view in Chamberlain's History of London shows this phase; east wing and statue are *in situ*, but the western half of the present quadrangle is occupied by old gabled buildings nearly up to the statue. The section of Rocque's map (1746), reproduced in Wilk's and Bettany's History of Guy's, shows this in plan. The west wing (with the chapel) was commenced in 1774 and completed in 1780. The view in Maitland's (1739) History anticipates this completion, and Harrison (1777) and Thornton show both east and west wings, but none of them depicts the alteration of the plain old façade to its later and more ornate state, with its five arches in the place of three, which was also undertaken between the years 1744 and 1780. Only in the later steel engravings by Rawle and others subsequent to 1800 appears the new façade with the sculptured pediment, the bas-reliefs, and the figures of Æsculapius and Hygeia, as we know it. The "Lunatic House" was first built in 1774; rebuilt in 1797; but only changed its name to "Clinical" in 1860.

Guy's Hospital Ladies' Association.

THE Seventeenth Annual Meeting was held in the Court Room on Tuesday, May 14th, at 3.30. Lady Goschen took the chair, and amongst the large number of members present were Mrs. Benyon, the Hon. Mrs. Merry, the Hon. Mrs. Henry Molyneux, Mrs. Charters Symonds, Mrs. Arbuthnot Lane, Mrs. Frederick Taylor, Miss Houghton, Lady Fripp, Lady Perry, Mrs. Pye-Smith, Mrs. Strode, Mrs. Bevan and Miss Dunn.

Lady Goschen welcomed the members present, and thanked them for the many services they had rendered the hospital. Work of this kind could be undertaken by nearly everyone, and the longer she lived the more convinced she became that the happiest people were those who worked for others. If the members would think of their experiences of illness, surrounded by every comfort, they would be able to realize how dire was the need of the poor in like circumstances.

Mrs. Benyon moved the adoption of the report. The Association is now supporting, by an annual contribution, all the eight beds in the Maternity Ward, in addition to two cots in Esther and Lydia respectively. It is also proposed to start an Endowment Fund for a cot, the nucleus of which is a donation of £40 given by the Guy's Hospital Ball Committee. The number of garments contributed during the year is very large, and their excellence testifies to the genuine interest taken by the members in the work.

Mrs. Blatherwick and Mrs. Fawcett were elected to fill vacancies on the committee. The meeting terminated with a vote of thanks to Lady Goschen for kindly presiding, after which tea was served, and a large number of the members present visited the hospital under the guidance of the sisters.

Papers by Guy's Men.

H. C. Cameron, M.A., M.D., M.R.C.P.: Lectures III. and IV. On Some Common Disorders of Nutrition in Infancy.—*Clinical Journal*, May 29th and June 5th.

T. B. Hyslop, M.D., C.M., F.R.S.E.: The Intracranial Mechanism in Health and Disease.—*Practitioner*, June, 1912.

A. C. Jordan, M.D. Cantab.: Some Points Concerning the Duodenum and the Appendix in Intestinal Stasis.—*British Medical Journal*, 1st June, 1912.

E. W. Routley, M.D., M.R.C.P. Lond., D.P.H. (M.O.H. and School M.O., Aldershot): The Admission of Very Young Children to Schools.—*Medical Officer*, 25th May, 1912.

Sport.

Athletic Club.

THE Annual Sports were held on Saturday, June 1st, at Honor Oak Park. The ground was in very fair condition, and there was a good attendance in spite of a sharp shower at one o'clock. Rain fell towards the end of the afternoon, but cleared up sufficiently to allow the prize distribution to take place in the open. This was very kindly performed by Mrs. Cameron, to whom the committee wish to express their thanks. We were pleased to see a large number of the Staff present, and also the Matron and several Sisters.

Mrs. Cameron, Mr. Mollison, Dr. Fawcett, and Dr. Craig all very kindly presented prizes, and Dr. French again gave cups for the Tug-of-War. The Club owes a debt of gratitude to all of these.

There were no very strikingly good performances, perhaps the best being H. W. Evans's 220 yds. in 23 2/5 secs. As usual, the Donkey Race provided a great deal of amusement, and the Tug-of-War was as popular as ever.

OFFICIALS:—*Judges*, Messrs. C. H. Fagge, F. J. Steward, T. G. Stevens, P. Turner, H. C. Cameron,

L. Bromley, W. M. Mollison, H. Chapple, G. H. Hunt, C. H. Rippmann, E. C. Hughes, R. Davies-Colley. *Referee*, Dr. Fawcett. *Starter*, S. H. Browning, Esq. *Timekeeper*, W. J. Ogilvie, Esq. *Hon. Secretaries*, H. W. Evans, H. Mather.

100 YARDS SCRATCH.—H. W. Evans, 1; R. W. Spong, 2. Time, 11 sec.

100 YARDS HANDICAP.—R. W. Spong, 5 yds., 1; A. W. A. Davies, 4 yds., 2.

220 YARDS SCRATCH.—H. W. Evans, 1; E. S. Bowes, 2. Time, 23 2/5 sec.

220 YARDS HANDICAP.—R. W. Spong, 9 yds., 1; A. W. A. Davies, 6 yds., 2. Time, 23 3/5 sec.

440 YARDS SCRATCH.—E. S. Bowes.

440 YARDS HANDICAP.—E. S. Bowes, 1; W. H. Ogilvie, 2. Time, 54 2/5 sec.

HALF-MILE SCRATCH.—H. Parry Price and J. R. Barrow-Clough, 1; equal.

HALF-MILE HANDICAP.—E. S. Bowes, 14 yds., 1, H. Parry Price, scratch, 2. Time, 2 min. 4 3/5 sec.

ONE MILE SCRATCH.—H. Parry Price, 1; J. R. Barrow-Clough, 2. Time, 5 min. 1 3/5 sec.

ONE MILE HANDICAP.—N. H. W. Saw, 35 yds., 1; W. K. McKay, 50 yds., 2.

THREE MILES SCRATCH.—A. G. Forrest, 1; H. Parry Price, 2.

THREE MILES HANDICAP.—H. Parry Price, 25 yds., 1; J. R. Barrow-Clough, 2.

HURDLES, SCRATCH.—A. W. A. Davies, 1; W. J. O'Kane, 2. Time, 18 1/5 sec.

HURDLES, HANDICAP.—A. W. A. Davies, owes 15yds., 1; C. W. Baxter, scratch, 2. Time 20 sec.

LONG JUMP, SCRATCH.—C. H. Medlock, 1; H. W. Evans, 2. 19ft. 7in.

LONG JUMP, HANDICAP.—A. K. Day Lewis, 4ft., 23ft. 1½in., 1; M. B. M. Tweed, 1ft. 6in., 20ft. 2in., 2.

HIGH JUMP, SCRATCH.—C. H. Medlock, 5ft. 4in., 1; A. K. Day Lewis, 4ft. 11in., 2.

HIGH JUMP, HANDICAP.—C. H. Medlock, 1½in., 5ft. 5½in., 1; A. K. Day Lewis, 5in., 5ft. 4in., 2.

PUTTING THE SHOT, SCRATCH.—E. A. Leviseur, 28ft. 1in., 1; M. B. M. Tweed, 27ft. 10½in., 2.

PUTTING THE SHOT, HANDICAP.—M. B. M. Tweed, 6in., 28ft. 4½in., 1; E. A. Leviseur, scratch, 27ft. 10½in., 2.

THROWING THE HAMMER, SCRATCH.—H. W. Evans, 94ft. 8in., 1; E. A. Leviseur, 63ft. 4in., 2.

THROWING THE HAMMER, HANDICAP.—E. A. Leviseur, 5ft., 98ft. 4in., 1; A. L. Anthony, 35ft., 96ft. 9in., 2

CLEMENT LUCAS CHALLENGE CUP AND CHAMPIONSHIP MEDAL.—H. W. Evans.

Cricket.

GUY'S v. GRANVILLE (Lee).

Played at Honor Oak Park on May 22nd. Guy's by bad fielding missed many chances. Keer and Veale both batted well.

GUY'S.

A. B. Bond, b Hillman	11
K. J. T. Keer, s Thomas, b Hillman	50
R. M. Veale, c Howitt, b Lincoln	35
F. C. Hunôt, c Hillman, b Blake	7
C. Vincent Brown, b Hillman	0
G. W. M. Andrew, c Blake, b Howitt	7
A. H. Harkness, not out	36
F. Welton, c Lincoln, b Hillman	6
T. A. V. Wood, lbw, b Blake	3
F. Tooth, b Blake	10
A. S. Liebson, b Lincoln	6
Extras	24
Total	195

GRANVILLE (LEE).

J. O. Anderson, b Tooth	2
P. L. Lincoln, b Tooth	16
F. E. Lander, lbw, b Harkness	35
J. E. Hull, not out	92
E. Hillman, c Veale, b Harkness	3
P. Lincoln, not out	28
Extras	14
Total (for 4 wickets)	190

GUY'S v. BEXLEY ASYLUM.

Played at Bexley on Saturday, May 25th; our first win. Bond and Keer started off well, putting on 91 for the first wicket. Bond, in attempting an impossible run, was run out. Keer and Rook played excellent cricket.

GUY'S.

A. B. Bond, run out	36
K. J. T. Keer, c Williams, b Lunn	93
A. H. Birks, b Everest	10
A. F. Rook, c Rolfe, b Williams	92
F. C. Hunôt, c Rolfe, b Lunn	0
J. Vincent Brown, b Pepler	5
G. W. M. Andrew, lbw, b Evans	17
V. Biddle, b Evans	0
J. Bastard, not out	9
F. Tooth, lbw, b Everest	10
C. Matlock, b Everest	0
Extras	33
Total	305

BEXLEY.

H. J. Mitchell, c Keer, b Tooth	23
H. Pepler, b Rook	35
Dr. G. Evans, c Bond, b Rook	4
C. P. Heenan, b Andrew	8
R. M. Lunn, b Hunôt	11
G. H. Everest, b Hunôt	5
A. Joliffe, b Hunôt	15
C. Williams, b Tooth	5
Dr. J. Brander, not out	2
A. S. Riches, c Tooth, b Hunôt	1
D. Rolfe, b Tooth	1
Extras	16
Total	126

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 626.] JUNE 22, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	245–247
Dental News	247
Appointments	247–248
Papers by Guy's Men	248
Nurses' Debating Society	248
Correspondence	249–251
London Bridge and the Borough in the Eighteenth Century	251
Cancer of Rectum and Pelvic Colon. Clinical Lecture by C. H. Fagge	252–257
Change of Address	257
Chorion Epithelioma Malignum. A Report of Seven Cases occurring at Guy's Hospital. By G. Maxted	258–260
Reviews, etc.	260–262
Sport	263–264

Passim.

THE Treasurer's Gold Medal in Clinical Medicine has been awarded to Mr. J. A. Ryle, to whom we would offer our heartiest congratulations upon his success.

WE would once again call the attention of our readers to the Biennial Dinner to be held at the Connaught Rooms on the evening of June 28th next. Elsewhere in our columns will be found a complete list of those who have, so far, signified their intention of being present. It is hoped that this year's Dinner will constitute a record as to numbers, and at any rate a highly enjoyable evening is already assured. Any Guy's men who may make up their minds even yet to be present should send in their names at once to the Hon. Sec., Dr. Fawcett, before Saturday evening, June 22nd. We need not paint the delights of a Biennial Dinner to those who have already attended one, but we can assure those who have not that it is a time of delightful reunions, and one which leaves behind the happiest of recollections.

THE institution of the many new special departments at the Hospital, and the consequent increase in the number of students' appointments, has led recently to a number of changes in the scheme of work to be done by men before presenting themselves for their final examinations. These various alterations have been noted in the GAZETTE, and we have now to record still further changes which will serve materially to shorten the period of compulsory study in the wards. In the first place it is proposed to combine the appointments of Obstetric dresser and extern, which, together, at present occupy four months. Under the new scheme the combined appointment is to become compulsory, and is to extend over a period of three months. Eighteen dressers are to be appointed every three months, and their work is to be subdivided as follows:—

While all the Dressers shall follow the Obstetric Practice of the Hospital, both in the Wards and at Out-Patients, during each month, six Dressers shall be specially attached to the Surgeons, three to each, in the Wards, and it shall be their privilege to examine the cases in the Wards and to assist at all operations.

Six Dressers shall be specially attached to the Obstetric Surgeons at Out-Patients, and it shall be their duty to make the necessary examinations. Six Dressers shall act as Externs.

During the second and third months the positions shall be changed, so that each Dresser during the three months acts in turn in the Wards, the Out-Patient Department, and as Extern.

All Dressers shall have the right of being summoned to cases of labour occurring in Victoria Ward, and the Dressers, both in the Wards and at Out-Patients, shall give daily attendance at the indoor practice of the Lying-In Ward in the Hospital, and shall attend the clinical teaching of the Obstetric Surgeons and of the Registrar.

In the event of fewer than eighteen Students being appointed to the post of Obstetric Dresser, a third of the total number shall be appointed to each of the three divisions of the work.

By such an arrangement every student will do a three months' appointment in the obstetric wards immediately after his three months in the special departments, and the difficulty of making a fair division of appointments will be greatly lessened.

FURTHER, in consequence of the increasing length of time occupied by the compulsory appointments, considerable alterations have been made with a view to shortening that time. It is proposed to include the appointment of Post-mortem clerk in that of extension medical ward clerk, the combined appointment to occupy a period of three months. The extension medical ward-clerks will, upon certain days, receive practical instruction in the method of performing autopsies, and will be responsible upon the same days for the preparation of the abstracts of the clinical reports, and for the work of writing the descriptions of the post-mortem appearances from the dictation of the pathologist. The Medical Registrars will, every three months, prepare a rota of ward-clerks so that one clerk will be available for each day in the week except Monday, when there shall be two, care being taken as far as possible to appoint the clerks for duty on days on which the physicians to whom they are attached do not visit the wards.

THE order, therefore, of the compulsory appointments in future will be as follows:—

1.	Surgical Ward Clerk... ...	3 months
2.	Medical Ward Clerk	3 "
3.	Assistant Surgeons' Dresser	3 "
4.	Medical Ward Clerk and Post-mortem Clerk	3 "
5.	Full Surgeons' Dresser ...	3 "
6.	Special Departments ...	3 "
7.	Obstetric Dresser and Extern	3 "
*8.	Fevers	2 "
		23 months

*Three months for Cambridge men.

Instruction in Mental Diseases and Operative Surgery may be taken at any time, according to the date of the courses arranged. Instruction in Vaccination and Anæsthetics may be combined with instruction in Fevers.

YET another alteration in the appointments consists in a re-arrangement of the groups of Special Departments. The division into three groups—one comprising the Medical Special Subjects, and the other two the Surgical Special Subjects—seems likely to result in a great excess of applications for the latter groups, and a want of applications for the former, because Students feel that while they can acquire some knowledge of the Medical Special Subjects by attendance at Out-Patients in the ordinary way without holding the post of Clerk, they have little opportunity, except when serving as Dressers, to acquire a knowledge of the work done in the Surgical Special Departments. Further, the appointment of two Surgeons, each of whom sees Ear and Throat cases twice a week, would, under the present arrangement, entail the attendance of dressers on four afternoons a week, which is held to be excessive. Consequently the following grouping has been adopted, there being eight dressers in each group:—

1. Throats and Ears; Skins; Orthopædics.
2. Ears and Throats; Children; Genito-Urinary.
3. Eyes; Nerves.

This new grouping gives a better division of work than that at present in force, and further avoids any clashing of Out-Patient days.

CONSIDERABLE alterations have recently been made in the teaching of the subjects of the Final L.D.S. Examination. It has seemed desirable to arrange that, as far as possible, the Student shall only be required to attend such lectures as deal with the subjects mentioned in the syllabus, and also to arrange that Dental Students shall be able to obtain a good practical knowledge of ordinary surgical diseases without having to sit through many afternoons of General Surgical Out-Patients, at which the greater number of cases are of little use or interest to them.

In Surgery it is suggested that all Dental Students shall be put under the particular charge of the Fifth Assistant Surgeon, who shall give a weekly demonstration during each term on selected surgical cases in the old Operating Theatre.

Further, revision classes in these general subjects are to be instituted, which are to be compulsory, and for admittance to which, we understand, a test examination will have to be passed.

WE understand that a novelty in the way of inter-hospital competitions has been inaugurated in the form of an inter-hospital tennis tournament for nurses, a cup for this purpose having been very kindly presented by the proprietors of the *Nursing Times*. The first round, against the City of London Lying-in Hospital, has already been played, and the Guy's representatives proved easily victorious. The first pair were Sister Gladys and Sister Doris who won easily (6.1, 6.1, 6.0), and the second pair were Nurse Maher and Nurse Rollo, who also easily defeated their opponents, the score being 6.1, 6.0, 6.0. We hope that the Guy's representatives may continue their success in the further rounds of the competition, and that the Nurses' Home may soon boast of the guardianship of as many cups as the smoking room.

THE date of the Annual Garden Party and Prize-giving has been fixed for Thursday, July 11th, when the Marquess of Salisbury has kindly consented to distribute the prizes.

Dental News.

THE Annual General Meeting of the Dental Society was held on Thursday, May 30th, when the following officers were elected for the Session 1912–13:—President, Mr. Wynne Rouw; Vice-Presidents, Mr. Hopson, Mr. Lewin Payne, Mr. Dowsett, Mr. Davies-Colley, Mr. Aubrey, Mr. Malleson; Hon. Secretary and Treasurer, Mr. Guy Neeley; Committee, Messrs. Roberts, Charles, Bulleid, and Bevis; Dental Correspondent, Mr. E. R. Saul.

The prize of £5 for the best paper read before the Society was awarded to Mr. Tanner for his paper on "Some Factors on the Prevention of Dental Caries."

The prize for Casual Communications was not awarded.

Appointments.

Medical School Appointments.

JULY—SEPTEMBER, 1912.

The following appointments have been made by the Treasurer upon the recommendations of the Medical Council:—

Clinical Assistants in Clinical Wards.—Messrs. T. I. Bennett, R. D. Passey, L. Milton, H. Webb, C. A. R. Gatley, W. S. George.

Clinical Assistants in Medical Wards.—Messrs. W. K. Fry (Dr. Hale White); G. S. Miller (Dr. Pitt); A. B. Danby (Sir Cooper Perry); C. G. H. Pochin (Dr. Shaw).

Dressers in the Ear, Genito-Urinary, and Throat Departments.—Messrs. H. Gould, A. C. Hancock, R. C. Matson, H. Mather, J. R. Barrow-Clough, M. Z. Hanafy, J. F. G. Richards, W. Robinson, S. S. Crosse.

Dressers in the Ophthalmic and Orthopædic Departments.—Messrs. T. A. Townsend, E. D. Scott, H. W. Evans, H. C. Rook (Mr. Eason); A. J. E. Smith, E. M. Mahon, W. L. Gwyn-Davies, J. M. Joly (Mr. Ormond).

Clerks in the Skin, Nerve, and Children's Departments. Messrs. F. W. Lawson, F. D. Annesley, A. J. Drew, H. C. Godding, W. C. D. Maile, V. F. Soothill.

Obstetric Dressers.—Messrs. W. R. Reynell, W. H. Ogilvie, E. G. Martin, F. A. Hampton, A. M. Zamora, J. A. Ryle (Mr. Targett); R. C. Ozanne, O. G. Morgan, D. W. John, N. Garrard, R. A. Fawcus, C. Sherris (Mr. G. B. Smith).

Post-mortem Clerks.— Messrs. A. S. Erulkar, V. Atienza, R. H. Lucas, E. S. Taylor, P. H. Berry, T. W. Sheldon, C. Dean.

Surgeons' Dressers.—Messrs. C. Lambrinudi, J. F. Venables, A. H. Taymour (Mr. Symonds); C. S. L. Roberts, P. Savage, C. F. Pedley, F. V. Bevan-Brown (Mr. Lane); F. H. Dodd, J. York Moore, R. O. H. Jones, P. L. Du Vergè (Mr. Dunn); R. P. Ninnis, C. G. McClymont, P. R. Chevreau (Sir A. Fripp).

Assistant Surgeons' Dressers.—Messrs. G. L. Attwater, G. B. Pritchard, H. L. Messenger (Mr. Steward); N. H. W. Saw, F. E. R. Laborda (Mr. Fagge); D. M. McManus, E. R. Bailey, F. G. L. Scott (Mr. Rowlands); C. De W. Gibb, H. G. Dresing (Mr. Turner); T. R. Trounce, R. B. Campion (Mr. Hughes).

Medical Ward Clerks.—Messrs. W. E. Tanner, A. Wills, E. C. W. Starling, H. P. Whitworth (Dr. Hale White); P. R. Roswell, H. H. Elliot, D. R. Jones, A. Abd-el-Al (Dr. Pitt); F. C. S. Broome, D. C. Scott, L. Muir Smith, A. N. Minns (Sir Cooper Perry); S. Wilson, C. Dean, R. J. Hearn, T. W. Sheldon (Dr. Shaw); C. R. Smith, S. S. B. Harrison, W. M. Lansdale, O. G. Parry-Jones, P. D. Scott, L. A. J. Graham, H. Parry-Price, R. Sells.

Surgical Ward Clerks.—Messrs. J. S. Cocks, C. E. Petley, C. H. Medlock, J. E. Davies, L. R. Pickett, B. Burnside, A. S. Liebson.

Clerks in the Obstetric Out-Patient Department.—Messrs. A. K. Selim, W. R. Pryn, L. D. Wright, J. L. Perceval, J. W. Kemp.

Naval and Military.

NAVAL.

Fleet-Surgeon E. S. Tuck to the *Illustrious* on re-commissioning.

MILITARY.

R.A.M.C.

Major V. J. Crawford has been appointed Specialist in Midwifery and Diseases of Women and Children at the Military Families' Hospital, Curepipe, Mauritius.

Captain H. V. Bagshawe, Specialist in State Medicine at present at Sheffield, has been placed under orders for a tour of service abroad during the coming trooping season.

Captain H. O. M. Beadnell, and Captain M. C. Wetherall have been selected to attend the next promotion course at the R.A.M. College.

Captain S. L. Pallant has been appointed Specialist in Otology, Royal Victoria Hospital, Netley.

Captain G. H. Rees has been appointed for duty in Belfast District.

Lieutenant P. C. Field has proceeded to Egypt for a tour of service.

Lieutenant A. G. Jones has been appointed for duty at Oxford and for service abroad during the coming trooping season.

I.M.S.

Captain H. C. Keates, M.D., has passed the Higher Standard Examination in the Baluchi Language by the prescribed test.

COLONIAL MEDICAL SERVICE.

L. Doudney has been selected for appointment to the Staff (Northern Nigeria).

Territorial Force.

THIRD WESSEX FIELD AMBULANCE, R.A.M.C.

Aurelius V. Maybury to be Lieutenant (dated, 1st March, 1912).

Civil.

F. Cowan, M.R.C.S., L.R.C.P., appointed District and Workhouse Medical Officer of the Strood Union.

Eric Bellingham Smith, M.D., M.R.C.P., appointed Physician to Out-Patients to the Great Northern Central Hospital, Holloway Road, N.

Papers by Guy's Men.

Hastings Gilford, F.R.C.S.: The Relation of Biology to Pathology.—*British Medical Journal*, 8th June, 1912.

J. D. Malcolm, M.B., C.M.: Wertheim's Operation for Cancer of the Cervix Uteri.—*British Medical Journal*, 15th June, 1912.

R. O. Moon, M.D. Oxon., F.R.C.P. Lond.: A Case of Congenital Stenosis of the Aorta.—*Lancet*, 8th June, 1912.

L. A. Parry, B.S., F.R.C.S.: Fracture of the Lower End of the Humerus in a Child Treated by Immediate Wiring.—*British Medical Journal*, 15th June, 1911.

B. F. Pendred, M.R.C.S., L.R.C.P.: A Case of Viper Bite in Epping Forest.—*British Medical Journal*, 8th June, 1912.

H. W. Webber, M.S. Lond.: Notes of Two Cases of Acute Pancreatitis.—*Lancet*, 8th June, 1912.

Nurses' Debating Society.

ON Thursday evening, the 6th of June, a Meeting was held in the Nurses' Home, under the auspices of the Nurses' Debating Society. Miss Sharpley, Warden of the Women's University Settlement, Nelson Square, kindly spoke on the subject of "The Complexity of Things." Unfortunately only a short résumé can be given of an interesting speech.

Miss Sharpley expressed her pleasure in being invited to take a more intimate part in the hospital life than heretofore, as a visitor to the wards or to Prize Day functions. It was interesting to hear that her first thought on deciding to take up work in South-East London was one of pleasure, that she would be in the vicinity of Guy's, where her father spent the happy years of his student life. But little of the too short half-hour had gone by when it was easy to see wherein lay the mutual interest between the speaker and her audience. It would be a dull mind indeed that could work for the smallest space of time in the hospital wards and not realise the social and economic problems that make for health or disease; they cannot be separated. Therein lay Miss Sharpley's message. Modern life makes great demands and will only accept the best, hence specialisation is a stern necessity.

Study to be proficient in your speciality, be it nursing or otherwise. That is not all. The twentieth century has set us another task, teaching that no man can live to himself alone. No world of strife can be shut out. For good and evil we are all individually responsible one to the other. The whole world is bound together in the same way with every scientific and mechanical advance. Up to the present a woman's education has hardly fitted her to meet such demands. She is now asked to *know*, not merely to seem.

Miss Sharpley invited her audience to take as a test a good daily paper and to feel that in regard to the multitudinous matters it touches upon, near or far, of rich or poor, of weal or woe, that they could show an intelligent, educated, and, above all, *helpful* interest.

It is a complexity confronting us before which the stoutest heart might fail, and Miss Sharpley spoke with feeling of its deep solemnity and difficulties. On the other hand responsibilities bring their pleasures, and she ended with Stevenson's cheerful note:

"The world is full of such a number of things,
We should all of us be as happy as kings."

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

The Biennial Dinner, June 28th, 1912.

DEAR MR. EDITOR,—I am much obliged to you for inserting my previous letters about the Biennial Dinner. I now send you the list of those who have, so far, signified their intention to be present. Dinner tickets have been sent to all those whose names appear in the accompanying list, and I would ask everyone to return to me *immediately* the notice accompanying the ticket as therein requested, if he has not already done so. If this is done I hope to be able to arrange that each diner will find himself seated among his own particular group of friends. On the other hand, it will be impossible for me to carry this satisfactorily into effect in the case of those whose replies reach me later than Saturday evening, June 22nd. Of course, if there are any Guy's men who have been unable, so far, to decide to come, and yet find that at the last they can do so, or if there are any who, on looking over the accompanying list, see names which induce them to come, I hope they will apply to me *at once* for a seat, informing me in their letter near whom they would like to sit, when I will do the best I can for these late comers, who, though late in applying, will be none the less welcome.

If anyone, whose name appears in the appended list, has not received his dinner ticket I shall be glad if he will write to me at once to say so.—I am, Sir, yours sincerely,

JOHN FAWCETT.

66, Wimpole Street,
June 20th, 1912.

LIST OF GUY'S MEN WHO HAVE SIGNIFIED THEIR INTENTION TO ATTEND THE DINNER.

1854—1869 (inclusive).

1854†	Dixon, John	1866	Bosworth, J. R.
1856	Daniell, G. W.	1867	Elliston, G. S.
1860	Tanner, J.		Sangster, C.
1861	Roper, A.	1868	Brookhouse, C. T.
1863	Butcher, H. O. F.		Goodhart, Sir James
	Muir, H. S.		*Higgens, C.
	Nichols, R. T.		Taylor, Frederick
1864	Roberts, E. C.		Townsend, T. S.
	Savage, Sir G. H.	1869	Bird, Tom.
	*Turner, J. Sidney		Durham, F.
1865	Elphinstone, R.		Gillingham, A.

1870—1879 (inclusive).

1870	*Branfoot, Sir A.	1871	Brailey, W. A.
	Matcham, A.		Ewart, J. H.
	Murphy, Sir Shirley		Latimer, H. A.
	Taylor, W. Bramley		Younger, E. G.
1872	Armstrong, R. S.	1877	Perry, C. E.
	Golding-Bird, C. H.		Uhthoff, J. C.
1874	Hay, W. A. E.	1878	Beale, E. C.
1875	Bevan, R.		Bryden, R. J.
	Brown, Thomas		Buxton, A. St. Clair
	Lancaster, H. F.		Chubb, W. L.
	Symonds, C. J.		Leigh, W. W.
1876	*Barrs, A. G.	1879	Cock, John
	Mansell, E. R.		Howell, T. A. I.
	Oram, R. R. W.		Penny, E.
	Tyson, W. J.		Scott, Alfred
1877	Davy, H.		Tabb, J. F.
	Lane, W. A.		

1880—1889 (inclusive).

1880	Ashwell, H. G.	1884	Brogden, R. W.
	Mahomed, A. G. S.		*Counsell, H. E.
	Newnham, W. H. C.		Growse, W.
	Ogle, C. J.		Maggs, W. A.
	Perkins, G. Steele		Muspratt, C. D.
	Smith, J. Cameron		Randell, R. M. H.
	White, W. Hale		Tubby, A. H.
1881	Adeney, E. L.	1885	Beard, F.
	Atkinson, T. Reuell		Du Buisson, E. W.
	Blatherwick, H.		Goodall, E.
	Green, A.		Goodall, E. W.
	Milligan, R. A.		Owen, S. Walshe
	Palmer, J. Irwin		Perry, Sir Cooper
	Pitt, G. N.		Routh, C. F.
	*Scott, B.		Wacher, S.
	Shaw, F. H.	1886	Brock, E. H.
	Stephens, Lockhart		Burghard, F. F.
	Warner, P.		Farr, E. A.
1882	Cock, F. W.		Rowell, G.
	Dalton, A. J.	1887	Black, G.
	Drew, H. W.		Browne, Robley
	Dunn, L. A.		*Brownfield, H. M.
	Gibson, J. H.		Randall, P. N
	Hind, Wheelton	1888	Cruickshank, J. D.
	Pollard, G. S.		Holman, F. K.
	Price, J. A. P.		Metcalfe, G. H.
	Sells, H. T.		Roberts, Astley
	Worthington, S.		Roberts, J. Lloyd
1883	Floyer, W.		Scott, Arnold
	Linnell, A.		Sharpe, C. H.
	Moore, W. Hodgson		Smith, G. B.
	Parry-Jones, M.	1889	Fripp, Sir A.
	Pillin, H. L.		Holman, H. J.
	Shaw, L. E.		*Lansdown, R. G. P.
	Targett, J. H.		Le Riche, P. J.
	Wright, H. Holland		Paget, P.
1884	Bean, C. E.		Rouw, R. W.

1890—1899 (inclusive).

1890	Fawcett, J.	1892	Biddle, H. G.
	Hickman, H. V.		Bligh, W.
	Spurrell, C.		Braithwaite, C. B.
	Stevens, T. G.		Durham, H. E.
1891	Bates, J. C.		Fisher W. H.
	Brown, R. King		Floyd, S. G.
	Coombe, T. S.		Lister, T. D.
	Craig, M.		May, P. M.
	Daldy, A. M.		Ralph, C. H. D.
	Emmet, J. W.		*Sheen, W.
	Hopson, M. F.		Steele, K.
	Jewell, J. W. F.		Thomas, J. D.
	Pollock, C. E.		Young, F. C.
	Richards, J. S.	1893	Cooper, H.
	*Salter, C. E.		Coulson, J. E.
	Thomas, A.		Edwards, F. H.
	Young, J.		Eyre, J.

1893	Frith, W. S.	1897	Cardin, H.
	Hazell, F.		Cleveland, A. J.
	Jewell, W. H.		*Cloud, F. H. L.
	Little, E. Graham		Fremantle, F. E.
	Luce, R. H.		Hancock, E. D.
	Pendred, V.		Moore, J.
	*Shillitoe, A.		Prince, P. C.
	Still, G. F.		Reckitt, W. F.
	Wilson, F. W.		Turner, P.
1894	Allport, A.		Way, M.
	Hardenberg, E.F.H.	1898	Alexander, K. B.
	Hopkins, C. L.		Campkin, P. S.
	Munro, H. A.		Curtis, P. J.
	Park, W. C. C.		Eason, H. L.
	*Robinson, W. E.		Henson, W. J.
1895	Handley, W. S.		Lidderdale, F. J.
	Henderson, E. E.		Lindsay, W. J.
	Hovenden, G. S.		McGavin, L.
	Mawby, F. W.		Moore, P. W.
	Partridge, A. H.		*Nicholson, C. R.
	Peters, E. A.		Ormond, A. W.
	Rowland, W. J.		Richardson, W. S.
	Steward, F. J.		Rowland, E. W. S.
	Stewart, H. M.		Telling, W. H. M.
	Wakefield, C. F.		Swan, R. H. J.
1896	Alexander, A.	1899	Brook, F. W.
	Busteed, J. H.		Cazenove, W. R.
	Fagge, C. H.		*Clarke, A. E.
	Knowles, C. H.		Ingram, P. C. P.
	Milbank-Smith, H. J. M.		Miller, A. A.
			Olver, S. H.
	Poole, T. Brice		Payne, J. Lewin
	Rowlands, R. P.		Pearce, F. J.
	Smith, D. Lloyd		Stewart, W. G
	*Spon, H. J.		Taylor, J. G.
1897	Beddard, A. P.		Walters, J. B.
	Bruce, H. W.		Watson, D. P.

1900—1911 (inclusive).

1900	Brydone, J. M.	1903	Glendining, B.
	Camps, P. W. L.		Goldie, E. G.
	Cross, F. G.		Mann, H. C.
	Forsyth, D.		Wedd, B. H.
	French, H.	1904	Forty, A. A.
	Goble, E. W.		German, H. B.
	Stamm, L. E.		Goble, F. G.
	Thomas, T. P.		Hertz, A. F.
1901	Bevers, E. C.		Hughes, E. C.
	Clarke, G.		Iredell, C. E.
	*Collins, M. A.		Leeming, A.
	Glover, J. Alison		Mollison, W. M.
	Greenfield, D. G.		Pollard, J. McF.
	Hammond, J. A. B.		Routley, E. W.
	Hardenberg, E. G. F.		Ticehurst, G. A.
	Shenton, E. W. H.		Woodward, H. M.
	Smith, Wilberforce	1905	Clarke, H. M.
	Thompson, R.		*Crofts, A. D.
1902	Evans, G.		Payne, O. V.
	Griffin, E. H.		Smith, E. B.
	Jackson, D.	1906	Alcock, A.
	Kennard, D.		Davies-Colley, R.
	*Odgers, P. N. Blake		Goodhart, G. W.
	Pinching, C.		Macalister, G. H. K.
	Shipway, F. E.		Malleson, H. C.
	Trail, D. H.		Purdom, W. P.
	Wylie, A.		Rippmann, C. H.
1903	Bethell, H. W.		*Rowlands, Richard
	*Bradbury, J. C. O.		Stebbing, G. F.
	Brailey, A. R.		Vandermin, H. F.
	Cooper, J. S.		Zorab, A.
	Donnell, J. H.	1907	Air, S. H. C.
1907	Aubrey, H. P.	1910	Hunt, G. H.
	Carlill, H. B.		Maxted, G.
	Carr, T. E. A.		Reynolds, A. J.
	Digby, K. H.		Sharp, N. A. D.
	Flower, N.		Stout, R.
	*Jones, C. E. M.	1911	Billing, E.
	Leeming, A. Norman		Cox, A. Neville
	Price, M. D.		Gardner, A. L.
1908	Atkins, F. R. L.		James, H. L.
	Ball, M.		Montgomery, R.
	Brookhouse, H. O.		*Mullally, G. T.
	Dobson, M. R.		Mutch, N.
	Lucey, H.		Sandison, A.
	Mandel, L.		Symns, J. L. M.
	*Price, P. S.		
	Ryffel, J. H.		
	Townrow, V.		
1909	Bromley, L.		Leigh, H. V.
	Chapple, H.		Martin, E. C.
	Greenwood, A. A.		Parry-Jones, O.
	Lee, H.		Seabrooke, A. S.
	Lees, A. E.		Stephens, H. F.
	Mills, C. H.		Taylor, E. S.
	*Saner, J. G.		Townsend, T. A.
1910	Edmond, J. A.		Wingent, R. M.
	Gardiner, H.		

† Date of qualification. * Vice-Chairmen.

Also Mr. H. Cosmo Bonsor, Viscount Goschen, Colonel F. A. Lucas, Mr. F. H. Norman, Mr. F. P. Whitbread, and the Editor of GUY'S GAZETTE.

Society and Disease.

DEAR SIR,—If we could only put all sentiment out of the question as H.W.B. so naively does in his article, "Society and Disease," the solution of a great many social problems would be a simple matter enough. The surprising thing is that such an anti-sentimentalist as H.W.B. should exclude the aged from his proposed *abattoirs*. If it were not for the youthful tone of the whole article it might lead us to think that the writer himself was on the shady side of sixty.

Of course, sentiment can be, and only too often is, carried to excess; but it is precisely the mutual co-operation of strong and weak which has enabled men to band themselves together into communities and so attain their pre-eminence on earth. And I am inclined to think that the imminent practice of State Eugenics will be rather in the direction of encouraging the reproduction of the extremely fit than of slaying the weaklings.

The very little that medical treatment can do for the sickly, or that the amenities of civilisation can afford them, is not a sufficient handicap to enable them to compete with the healthy on equal terms. In fact, recent social legislation has emphasised the difficulty of the defective labourer to earn a living. The employer rejects the deaf, the myope, the epileptic, the lame and the aged, because it is bad business to run the greater risk of having to pay compensation in these cases where accidents are more than usually likely to occur.

The most unpleasant notion in H.W.B.'s article is his idea of a sharply defined ruling class and a subservient

one. If he studies again the lessons of social evolution he will find that oligarchies, however relatively superior to the masses they rule, inevitably degenerate as the result of the enervating influences of privilege and pride. —I am, yours faithfully, D.

Dinner to Mr. Charters Symonds.

DEAR MR. EDITOR,—May I ask you to give publicity to the fact that a number of Mr. Symonds' old house-surgeons and dressers have decided to give a dinner in his honour on his retirement from the active staff at the end of July. I have already communicated with all those whose addresses were known, and I would take this opportunity of bringing the dinner to the notice of other old members of Mr. Symonds' firms who have not yet been informed of it.

Mr. Symonds will go round his wards for the last time on Monday, July 22nd, and the dinner will be held at the Criterion Restaurant on the same evening. Attendance at the dinner is limited to those who have been on Mr. Symonds' firms. I shall be glad if those desirous of attending will communicate with me, if they have not already done so.—Yours sincerely,

A. NEVILLE COX, Hon. Sec.

The College,
Guy's Hospital.

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 243.*)

Before leaving the Borough Hospitals a few words on an architectural obsession of the eighteenth century may not be out of place. In our perambulation of St. Thomas's we noticed how frequently Ionic pilasters recurred in the exterior decorations. We may even see, with our own eyes, some examples of them on one of the houses of the middle quadrangle which still exists at the bottom of yard belonging to the Post Office which opens on Denman Street. Such pilasters, again, are to be seen on the front of St. Bartholomew's, which was constructed in 1730. The Ionic style, indeed, seems to have exerted a strange fascination for the architect throughout the eighteenth century and even into the early nineteenth, as the old General Post Office in St. Martin's-le-Grand, 1829, and the Fishmongers' Hall, across the bridge, 1833, show.

It is, however, the peculiar glory of the rebuilders of St. John's Church, Horselydown (1735) that they have achieved what is probably the unique example of an Ionic steeple! Their slender fluted column tapers rapidly upwards to be crowned with the familiar twin volutes.

Our own façade (1774–1780) is, of course, of the same order. But there is another building still extant in London which, not only exhibits the same style, but is practically a replica of our own front without the ward buildings which flank it on either side. The Sessions House on Clerkenwell Green was built about 1780 from the designs of Mr. Rogers. The front is of stone and, like ours, presents a rustic basement, supporting Ionic columns and pilasters, surmounted by an architrave and pediment. It differs only in possessing rather ugly low-relief medallions and ornaments by Nollekens in the place of Bacon's sculptures in high relief and in the round. One wonders if Mr. Jupp (our architect) was aware of Mr. Rogers's designs!

Another characteristic 18th century feature of the buildings of Guy's House and "Clinical" is the type of window. One sees it recur again and again in old London buildings of the period.

II.

THE INNS AND ALLEYS.

"*. . . one side of it* (THE BOROUGH) *is principally occupied by butchers, the other with hop-factors and other considerable tradesmen, on which side also are several large Inns for the accommodation of carriages and passengers to and from the various parts of the counties of Surrey and Kent.*"—Harrison's History of London, 1777.

It is curious to note that after the lapse of more than a hundred years, the butchers and the hop-factors continue to glare at one another from their respective sides of the street; but the ancient Inns of Southwark have fallen on evil times.

A map from an early 18th century edition of Stowe's Survey catalogues the various courts and yards on either side of the Borough. Starting from the foot of the bridge on the eastern side we find *Chequer Alley*, *Hesters Yard*, *Dark Entry*, *Boar's Head Inn*, *Ship Inn*, *Black Swan Inn*. All these have long since been swept away; but from this point, southward from St. Thomas's Street, there are still many that we may recognise. King's Head Inn, White Hart Inn, *Crown Court*, George Inn, Talbot Inn, *Queen's Head Inn*, *Cock and Hoop Alley*, *Windmill Alley*, *Christopher's Alley*, Spur Inn, *Nag's Head Alley*, *Axe and Bottle Yard*, *the Marshalsea Prison*, Mermaid Alley, "Blew Maid" Alley, Half-Moon Inn, *Golden Lyon Court*, *King's Bench Prison and Alley*, Angel Alley, *Shaw's Court*. Here comes St. George's Church, and further south along Blackman's Street are *Three Arrow Alley*, *Black Spread Eagle Alley*, *Griffin Alley*, *Katherine Wheel Yard*, *Dolphin Yard*, *Lamb Alley*, *Cross Shovel Alley*, White Horse Alley, *Lumber Court*, *Red Cross Alley*, *Unicorn Alley*, *Rock Yard*, the greater number of which are destroyed or renamed. Across the road and proceeding northwards again are *Great Yard*, "*Bearfoot*" *Alley*, *Axe Yard*, *Rose Alley*, *Maidenhead Yard*, and Mint Street (or, as this part of it is now called, Marshalsea Road), opposite the Church. Faulcon Court, Red Cross Alley, *Dagger Alley*, *Maypole Alley*, *Grey Hound Inn*, *White Horse Inn*, *Windmill Alley*, Red Cross Alley, *Fishmonger Alley*, *Goat Yard*, Counter Street, *Frying Pan Alley*, *Three Crown Alley*, *Foul Lane*, *Angel Court*, *Pepper Alley*, St. Mary Overs Church, Montague Close, at the foot of the bridge again.

Place names are difficult to explain. Why, for instance, Layton's Grove, unless *a non lucendo?* A similar principle must have been brought to the naming of Angel Court, Violet Place, and "Arcadia." The Dickensians have been busy with Quilp Street and Little Dorrit's Playground, no doubt. "Eve" has taken "Adam's Place" opposite St. George's Church; a sign of the times, perhaps. But in one or two instances we shall be able to find a historic explanation for the names borne by the byeways of the Borough.

(*To be continued.*)

Cancer of Rectum and Pelvic Colon.

CLINICAL LECTURE BY C. H. FAGGE.

GENTLEMEN,—The text of my remarks to-day is a woman æt. 39, who was admitted into Martha ward on April 25th with a history of having passed blood per rectum for the previous six months. She had been suffering from constipation for nine months, but she gave no history of pain. Abdominal examination was entirely negative, but on rectal examination the lower hard edge of a large ulcer could be felt on the anterior rectal wall. The finger could not be passed beyond this, therefore no evidence was gained as to its mobility or as to its vertical extent. After preliminary preparation she was anæsthetised with ether, given by the open method, on April 26th, and placed in the Trendelenburg position. Then a short incision was made in the left semilunar line, and the hand introduced into the peritoneal cavity. The upper limit of the growth was felt on the level of the body of the uterus, and to the right of this was a large cyst in the broad ligament; it was difficult to delimit the induration around this from the growth itself. There was another small pedunculated cyst connected with the right ovary, which was removed. No secondary deposits were felt in the peritoneum or in the liver. The inferior mesenteric and pre-sacral glands were not palpably enlarged. A few small glands were felt in the meso-rectum, that group of lymphatic glands called, because of their relation to the large intestine, the para-rectal group. The abdominal incision was enlarged upwards and downwards, the junction of the iliac and pelvic colon was drawn out, and after crushing was ligatured at two spots at an interval of about an inch. Between these the meso-colon was divided towards the left common iliac artery. The meso-colon belonging to the pelvic colon and to the rectum were clamped at their parietal attachments and divided: below this the peeling of soft parts off the pelvic wall was continued well into the hollow of the sacrum. The parietal peritoneum was then divided forwards on either side of the rectum along the lateral pelvic wall, towards the back of the broad ligaments, so exposing the left ureter; in front of the rectum, where it passes on to the cervix, it was incised, so that the two lateral peritoneal incisions were connected together. The induration at the base of the right broad ligament was freely cut through, and appeared to be non-malignant. The bowel was divided between the ligatures which had previously been put on between the pelvic and iliac colon, and the ends invaginated by purse-string sutures; the upper end was brought out into the abdominal wound, and the lower tucked down to the hollow of the sacrum. All the vessels which had been secured in the pelvic meso-colon and meso-rectum were now ligatured. These were not many, and were the lowest branches of the sigmoid artery or arteries, and the superior hæmorrhoidal artery itself.

It is well to bear in mind that the greater part of the rectum is supplied by the superior hæmorrhoidal artery, and that that artery may form no anastomosis normally with the lower sigmoid group. W. J. Mayo ("Annals of Surgery," July, 1909), and some anatomy text-books, deny this; but it is of some surgical importance to bear it in mind as the nutrition of this part of the bowel may be endangered if, in the course of an intestinal resection, it is cut off below from its blood supply through the superior hæmorrhoidal. Owing to the fact that the incision had been made first in the left semilunar line, the peritoneum, which now was freed all round the rectum and which lined the hollow of the pelvis, was not sutured, as is usual to reform the pelvic diaphragm, partly because of the difficulty in reaching it and also because the broad ligament was infiltrated and indurated on the right side by the presence of this broad ligament cyst and so could not be drawn across the pelvis. The abdominal wound was closed, the closed lower end of the iliac colon being secured into the upper end of the abdominal wound. The patient was then placed in the lithotomy position and a circular incision made round the anus, well wide of the external sphincter, and deepened, so as to remove most of the ischio-rectal fat. The levator ani was divided: immediately above this one meets with the two middle hæmorrhoidal arteries, which pass forward on to the side of the rectum in loose folds of subperitoneal connective tissue. In this case both arteries were secured with forceps before division, and gave rise to no bleeding. The upper closed end of the pelvic colon was reached for in the hollow of the sacrum and drawn down, and in doing this, as it was acutely flexed from before backwards, there is no doubt that the bowel split transversely through the growth, and possibly the wound was infected, for when the rectum was

drawn out through the perineal incision there was a slit in the growth where it had torn through or split. The vessels were secured and the wound was closed with salmon-gut sutures, leaving room for a large gauze drain posteriorly. I should note that the operation took two hours and was unusually difficult and prolonged for such an operation in a woman. During this time she was given 4½ pints of saline solution subcutaneously: perhaps this precaution accounted for this prolonged operation being followed by very little shock, and during the first and second days her pulse ranged about 100 and her colour was good. The lower end of the iliac colon, which had been closed and brought out at the upper end of the abdominal incision, was opened on the second day, when the Fowler position had been adopted. She took fluids well and the colostomy opening acted satisfactorily. There was nothing further worthy of remark except that the abdominal wound became infected, and when on the seventh day some of the sutures were removed there was pus, evidently infected with B.C.C., which escaped from the seventh to the twelfth day. She was distinctly sapræmic, and the temperature rose to 102° every night. From the third to the twelfth day the pulse rose to 120 and then gradually continued to rise until she died, on the seventeenth day. At the post-mortem there was an extensive cellulitis and an abscess in the right iliac fossa, causing sloughing in that region and of the psoas. The peritoneum was sound and the colostomy opening was well shut off, though a lower part of the abdominal wound was sloughing superficially.

Though unsatisfactory in its termination, this case does well as a text for the consideration of malignant disease which involves the rectum and the lower part of the pelvic colon. I think that, clinically, growths in these parts of the large intestine may be taken together, because, firstly, in neither is there any possibility of forming a diagnosis by examination through the abdomen, except that occasionally on abdominal examination you may feel a distended large intestine containing, hard fæces, or even, in rare instances, the obstruction may be so marked that peristalsis can be seen in the large intestine. Beyond these things, abdominal examination will, as a rule, tell us nothing. Then again these cases should be taken together because they are amenable to one method of radical operation, which is called abdomino-perineal excision, of which I have already given a short description. But to-day I do not want to discuss so much the different methods of treatment of this disease as to specially lay emphasis upon the early signs and symptoms of malignant disease of these parts of the large intestine.

Malignant disease of the rectum is, like malignant disease in all parts of the large intestine, an adeno-carcinoma of the columnar-celled type. And one must conceive that this begins as a localised overgrowth of the mucosa, and in some cases—which is regarded by some writers as a distinct type—this overgrowth continues until you have a proliferating mass into the rectal cavity, a sort of papillomatous excrescence, which may be so marked as to produce obstruction.

One favourable point in the course of a malignant growth in the large intestine is that obstruction should occur early. Those growths which produce no obstruction go on for a long time without being diagnosed, and, as a rule, when operated upon are too advanced for any radical proceeding. The next stage—not a distinct type to my mind—is that, spreading all around from a centre on one wall of the bowel; it gradually tends to encircle the bowel, and so becomes annular. In the specimen, after removal from my patient, we could see the growth had not encircled the whole bowel wall, even though the history extended over nine months. There was an interval of a quarter of an inch posteriorly where the mucous membrane was quite healthy. And while this spreading takes place superficially in the mucous membrane, nutrition is defective in the centre of the growth, owing probably to the mixture of fibrous tissue forming in the interstices of the cancerous acini, and so the growth ulcerates. The more fibrous growths tend to produce obstruction by encircling the rectal wall, just as they do in the rest of the large intestine, where sometimes a growth has the appearance of a tight narrow band tied round the lumen of the bowel. While this spread is taking place superficially, ulceration is becoming more marked, and spread has taken place in the submucous tissue, for it is quite common microscopically to find—and everybody who has examined these things microscopically will bear me out—that the infiltration, or what Handley calls "permeation," extends much more extensively in the submucous tissue than it does superficially in the mucosa. The third stage, that of colloid or mucoid degeneration, regarded by some as forming a distinct type of growth, is a tendency exhibited by all growths in the large intestine, and is even sometimes seen in malignant disease of the stomach.

Those eccentric cells which become cancerous tend to revert to the common tendency of all columnar cells to undergo mucoid or colloid degeneration. When colloid degeneration takes place it seems that infiltration and the local condition of affairs, which we call malignancy, tends to become much more virulent.

Now, having detailed the pathological stages of this disease, it is interesting to surmise what must be the symptoms of this growth which begins as a projection of adenomatous growth into the bowel. It is quite clear that until the superficial cells ulcerate, no bleeding will take place. Until that time it is improbable that that foul discharge, which is so characteristic of the disease, and which is often described as morning diarrhœa, will be noticed. When asked whether they have suffered from constipation, most of these patients say no, but that, conversely, their bowels act several times a day, particularly in the morning. This excretion is not a true action of the intestine, but is a discharge of altered blood and mucus coloured with fæcal material, and is peculiarly offensive. When ulceration takes place, these patients begin to suffer from bleeding.

If the growth is annular, or if the projecting papillomatous mass in the rectum is of large size constipation is one of their symptoms. But it must be some months before any of these things can be present to indicate the presence of the growth. In a recent paper Mr. Miles (*Glasgow Medical Journal*, February, 1912) records four cases in which, for various reasons, no operation could be undertaken. These were examined from time to time, and the progress of the growth was recorded. He found that in these four cases an average of one year was taken for the growth to extend round four-fifths of the circumference of the bowel. It seems probable to me, therefore, as the woman who was our text had a growth extending at least four-fifths round the circumference of the bowel and yet gave a history of symptoms for only six to nine months, that she had had a growth at least three months before any symptoms were produced by it. The other symptoms, which are so commonly regarded as suggestive of rectal carcinoma, are the symptoms of the disease in an advanced stage. Not only in connection with this disease, but in every disease which has only comparatively recently been generally dealt with by surgery, we are apt to begin with a conception of it as it occurs in its most advanced form. This is because it is judged on post-mortem evidence, for there the disease is seen well advanced, and the history is, as it were, constructed backwards, after the style of a French criminal case, so as to arrive at the early symptoms of the disease. In this disease, as in many other abdominal conditions, what Mr. Moynihan calls the pathology of the living is at the present time very necessary. I wish to suggest to you that the symptoms of rectal tenesmus, which is so frequent in giving a sensation of incomplete relief when the bowels act, pain, flattening of the motions, increasing constipation, even ending in obstruction, are not the symptoms of rectal carcinoma in the stage in which we want to diagnose it, because they are the symptoms when the disease is getting beyond operative cure. I have just said that in rectal carcinoma the motions may become flattened or pipe-like; but it is well to bear in mind that the form and shape of the motions is determined in the last four inches of the rectum; therefore, if the growth is above this level, the motion may re-form into the ordinary shape before extrusion, despite the fact that there is constriction higher up. Perhaps the saddest fact in connection with rectal carcinoma is the absence of pain in the earlier stages. It is due to the absence of sensibility of this part of the intestinal tract; this subject, as you know, has been recently investigated by Dr. Hertz. In one of the greatest monographs which have issued from Guy's, "Rest and Pain," John Hilton drew attention to the absence of pain in growths in the upper part of the rectum, which, he says, contrasts very markedly with the extreme sensibility of the lower two inches of the alimentary tract, where the value of a delicate sensibility is obvious. Attention is drawn by Mr. Hilton to several cases of advanced rectal carcinoma in which growths could be felt with the finger and in which pain was entirely absent.

When pain is present it nearly always means that there is either extensive ulceration or extramural involvement; it means that a raw surface is being irritated by a solid fæcal mass passing over it, and this pain is, therefore, most marked when patients are passing their motions, or that the sacral nerves are being pressed upon. But, as pointed out years ago by Sir Charles Ball in his book on the rectum, though many people with rectal diseases, such as fistula, fissure, and hæmorrhoids, experience great and excruciating pain on passing motions, in an ulcerating rectal cancer pain is complained of apart from the passage of motions. When the rectum is constricted by the growth above, internal hæmorrhoids may develop; this, in my

experience, is uncommon, and no well marked hæmorrhoids have complicated any case on which I have operated.

When the symptoms are so indefinite it becomes immensely important that the physical examination shall be very careful and thorough and carried out early. One cannot comfort one's self by saying, "I need not examine this rectum because the patient is only 10 or 20 years of age," because cancer of the rectum may occur in quite early life. A few minutes ago I was looking through the cases that have been in the hospital under my care, and I came across notes of a forgotten case of a youth, aged 19, who had so extensive a growth of the rectum that nothing could be done except colotomy. I have operated on two others of about 25 years of age. Thompson and Miles report a case, treated by them, of colloid carcinoma of the rectum in a boy of 12. It is extraordinary that patients whose symptoms suggest this disease are so often found not to have had a diagnostic rectal examination made at the onset. This was one of my favourite texts when I was Surgical Registrar, because during the two years I held that office I examined thirteen patients who had advanced malignant disease of the rectum which was palpable by the finger, but who, when they came in, had not had the rectum examined digitally. I remember one man, whom I saw privately, whose malignant disease was so advanced that he had secondary malignant ascites with a large liver in which one could feel cancerous masses, and yet no effort had been made to find out the original focus of the disease.

In passing the finger through the sphincters one may learn something, even though the rectum be absolutely normal. In the first place, if the anal canal is normal it is quite certain that the symptoms, if they be constipation or the passage of a bloody discharge, or pain, are not due to syphilitic stenosis. This condition of stenosis of the rectum, which is rarer than inspection of the museum specimens would suggest (and in our museum is always found in women) is commonly associated with the formation of a fistulous opening between the rectum and the vagina.

In this disease ulceration and stenosis seems to begin at the anus and extend upwards; in rectal carcinoma the anal canal is normal. But on passing the finger upwards one may find the rectum ballooned; this, if present, is of considerable diagnostic value. Instead of the rectal walls lying in contact, you find that the finger passes into a cavity so large sometimes that it may be difficult to touch its walls. This physical sign suggests a local constriction somewhere above it, but its causation is very obscure. It is commonly said that ballooning of the rectum indicates a growth within the lowest six to twelve inches. I have seen well-marked ballooning of the rectum in a woman who had a malignant constriction in the middle of the transverse colon; I have examined and felt well-marked ballooning in patients in whom there is no suspicion of growth anywhere. Thus I have met with ballooning of the rectum in the early stages of pelvic peritonitis, whether due to appendicitis or to inflamed tubes, so that besides its value in rectal carcinoma, there are certain fallacies connected with it. With regard to its causation, it is commonly said that the constricting growth above interferes with the neuro-muscular mechanism which we call peristalsis, and that the impulse is cut off and so a paralytic distension or dilatation of the rectum below takes place. Another view is that it is simply due to dilatation of the rectum above the sphincter by gas, due to excessive bacterial activity.

Beyond this ballooned rectum it is common to feel a growth when the patient has one, and it makes one realize that the common situation of rectal cancer is in the dilated portion of the rectum; it is called the rectal ampulla, and is two to six inches away from the anal orifice, immediately posterior to the base of the bladder and prostate in the male, and to the cervix and pouch of Douglas in the female. The growth may be felt as a hard ulcer, and may be demonstrated to be annular. This type is commonly described as having an everted protuding margin which, being circumferential, is not unlike an irregular os uteri.

There is a pretty specimen in the Museum which shows that the constricting growth is constantly being forced downwards towards the anus, so tending to produce a local intussusception. The last thing one learns on rectal examination is the extent and mobility of the growth. This is not of great value at the present time, because the time has passed, or is passing, when efforts are made to remove these growths through the perineum. Some writers on the subject—Mr. Harrison Cripps particularly—have paid considerable attention to the question of mobility of the growth, because they thought that if a growth was mobile by testing with the finger, that it did not involve the tissues outside the rectum, and so was capable of perineal excision.

The last method of examination which is of value is with the sigmoidoscope, by which one can explore not only the rectum, but also the succeeding six or more inches of the pelvic colon. If a growth exists in the lower part of the large intestine, that part which is impalpable to abdominal examination, it is most likely to occur at about three to five inches from the anus; and if it does not occur there it is most likely to lie at the left brim of the pelvis, at the point where the large intestine passes across the left external iliac vessels and the psoas, where it is, usually described as losing its close application to the iliac fossa and acquiring a mesentery at the junction of the iliac colon above with the pelvic colon below. If the sigmoidoscope is introduced the presence or absence of a growth in any part of the rectum where you cannot feel may be demonstrated. The instrument will not enable you to determine in many cases that there is a growth at the beginning of the pelvic colon, because, under normal conditions, that must be about two feet away from the anus. But even though the tube is only twelve inches long you can examine with it much more than twelve inches of the intestine, because the intestine puckers upon it, much as the finger of a glove may fold upon the finger. And if the sigmoidoscope is introduced as far as possible it is sometimes easy to get a sensation of fixation of the bowel at the upper end as if the intestine could not straighten out so that the sigmoidoscope might pass onwards. I have once or twice experienced this, and it seems to me of considerable value.

The diagnosis of malignant disease of the rectum or lower end of the pelvic colon cannot, to my mind, be difficult when it can be seen or felt. When it cannot be seen or felt, then on a suspicion which is often amply justified after careful investigation of the history and symptoms, the abdomen should be opened, and I have once only opened an abdomen fruitlessly on a suspicion of malignant disease.

With regard to treatment, it resolves itself into the question of a fight between partisans of the perineal and the abdominal routes. There was a discussion at the Royal Society of Medicine, in January, 1911 (Proc. R.S.M., February, 1911), in which Mr. Harrison Cripps, Mr. Swinford Edwards, and the late Sir Frederick Wallis took part and held the field for the perineal operators, and Mr. Mummery, Mr. Miles, Mr. Handley and others fought for the abdominal route. The reasons which then made me say that I never would operate through the perineum again are even more cogent to-day. My experience was that every case but one in which I operated through the perineum had died of a local recurrence. And that that is not due entirely to personal incompetence may be confirmed by Mr. Miles's statement (*loc. supra cit.*) that local recurrence took place after his perineal operations in 94·9 per cent. Mr. Miles, in his paper, details his early operations; there were nine in which he operated through the perineum in what he would now regard as a niggardly manner, and a large percentage died from local recurrence, namely, in the perianal skin and ischio-rectal fat. He operated locally more extensively in a second series, and then he found that although he removed the bowel and tissues around as widely as possible, a large number died from recurrence in the levatores ani. So he again extended his operation, and in his last series there were still recurrences in the pelvic peritoneum and pelvic meso-colon. Finally he discarded the perineal route in favour of the abdomino-perineal or combined route.

I had to learn my bitter lesson in much the same way. A man was admitted four or five years ago into Lazarus, and his rectum was apparently satisfactorily removed through the perineum by Kocher's method, but he died five days afterwards from acute pneumonia. It was then found that he had a well-marked secondary deposit in his liver. We then knew that this man had been put to the risk, which was fatal in his case, of an operation for excision of the rectum which could never be curative, and the risk could probably have been obviated if the abdomen had first been explored.

The next case I operated upon was still more interesting. Dr. Hertz told me one day he had an early case of rectal carcinoma in Clinical ward; the growth was six or eight inches from the anus and so could not be felt with the finger, but could be seen with the sigmoidoscope. The man was transferred to Lazarus Ward where he was again sigmoidoscoped, and everybody saw a small ulcer the size of a florin not involving more than one-third of the circumference of the rectum. It was thought by some that it would be possible to remove it by taking away the coccyx after Kocher's method. But I was very tired of perineal excisions, and I said I would open the abdomen. When I did so I found he had extensive deposits in the peritoneum, and therefore nothing was done. The scar of the abdominal incision was infiltrated with growth before the man left the wards. The crux of the whole question is the difference of opinion as to what cases are or are not

operable. Mr. Harrison Cripps, in defending the perineal method said he regarded 25 per cent. of cases of cancer of the rectum as suitable for operation, whereas Miles and other foreign authorities state that about 75 per cent. are operable. If the growth has involved the deeper layers of the rectal wall mobility is impaired, and acting on Cripp's proviso it is unsafe to remove it by the perineum. But even extra-mural invasion of growth does not contra-indicate the radical operation through the abdomen.

With regard to the question of extension, there are many interesting points in pathology to which I should have liked to draw your attention. It is interesting to examine the tendency to and direction of extra-mural and intra-mural extension. Mr. Handley has pointed out that extension along the bowel itself (intra-mural) takes place both upwards and downwards to an extraordinary degree. This he demonstrated by the muci-carmine method, by which the tendency of these cancer cells to undergo colloid or mucoid degeneration is made use of. Mr. Handley demonstrated, in many cases, cancer cells in the bowel wall four or six inches from the ulcer. The visible intra-mural extension is most marked in the submucous tissue, and Mr. Miles points out that it is common for these growths to involve the muscular layers of the intestinal wall within six months, and after this has occurred, permeation, first described by Handley, may take place to any extent. It has been pointed out by Miles that there may be extreme extra-mural extension of disease which you can see and feel in an exploratory laparotomy and which contra-indicates radical operation, yet does not interfere with the mobility of the rectum. I have had two cases which well illustrate this; in both the report states that *per rectum* the growth could be felt to be mobile, and yet abdominal operation demonstrated that there was extensive ineradicable infiltration of the pelvic floor and peritoneum. So Mr. Cripps's proviso with regard to mobility breaks down.

I have referred to downward extension, and have told you that in Mr. Miles's cases it involved the peri-anal skin and ischio-rectal fat, whereas lateral extension takes place into the tissues of the levator ani and into the glands which are situated above it. Upward extension takes place into the pelvic peritoneum, into the pelvic meso-colon and into the para-colic glands, and these infect the glands lying along the inferior mesenteric artery (Moynihan). If these statements are correct the tendency to spread along there paths breaks down the basis of a most alluring operation which was introduced by Miss Aldrich Blake, and which is called the abdomino-anal operation, in which, after resection of the growth and mobilisation of the colon, the proximal end of the pelvic colon is brought down to the anus, and the continuity of the alimentary canal is restored, with the view of giving the patient a functional anus. It appears from the pathological data I have referred to that it is usually impossible to operate radically and thoroughly, and yet to leave the levators and the pelvic meso-colon, and the first aim of everybody in dealing with malignant disease is to prevent recurrence. If the pelvic floor is left behind there is danger of recurrence, and if it is not left behind the anus will be functionless and incontinent which is a much worse condition than that obtained by colostomy. It is extraordinary how late metastatic deposits in the liver are in this disease.

The operation mortality of the abdomino-perineal method is high—in Miles's 42 cases 40 per cent., in my own about 60 per cent.: in none of my four patients who have survived, has any recurrence taken place up to the present.

If there had been time I would have drawn your attention to the indications for colostomy when obstruction is present, or as a palliative method. And I suggest that you should inquire into and observe the condition of patients on whom colostomy has been performed. Many patients who have had a well carried out colostomy are able to enjoy an ordinary life.

Change of Address.

G. B. Cockrem, M.R.C.S., L.R.C.P., to Royal Naval Barracks, Portsmouth.

R. C. H. Francis, M.B. Dur., L.R.C.P., M.R.C.S., from Royal Sea Bathing Infirmary, Margate, to 31, Glenthorne Road, West Jesmond, Newcastle-on-Tyne.

F. J. Morton Palmer, M.B., F.S.A., from 96, Marine Parade, Worthing, to Holford, Longfellow Road, Worthing.

E. P. Poulton, Radcliffe Travelling Fellow, from Bavaria Ring, 33, Munich, to Pension Tatlock, Ebendorferth. 4, Vienna.

J. T. Smalley, from D.M.O., Nanukuloa, Ra., Fiji, to D.M.O., Levuka, Ovalau, Fiji.

W. E. Wallis, M.B., B.C., to Sandon, Sea Road, Bexhill-on-Sea.

A. R. Wilson, M.B., B.Ch., from Edgewood, Lower Arrow Lake, B.C., Canada, to Enfield, Old Town, Bexhill-on Sea.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Chorion Epithelioma Malignum.

A Report of Seven Cases occurring at Guy's Hospital.

BY G. MAXTED.

THE following is an account of all the cases of chorion epithelioma malignum that have occurred in Guy's Hospital during the last 20 years:—

CASE 1.—Louisa D., æt. 48. Admitted into Dorcas under Dr. Galabin on April 22nd, 1898, for "continual floodings."

History.—She had 9 children, all full time, one being stillborn, and no miscarriages; her last confinement was in 1890. Menstruation had always been regular till May, 1897; she then missed three periods, and in August had a "small flooding." The next month she says her menses lasted four weeks, and ended in a bad flooding; she became weak and emaciated, and the floodings continued at short intervals. On November 25th pains resembling those of labour came on followed by severe hæmorrhage, and the expulsion of a "body" from the vagina, which the local doctor reported on inquiry as being a vesicular mole. Between that date and March the following year she had several slight floodings, ending in a very severe one on March 28th, 1898; from that date till admission into hospital a month later she was almost constantly losing.

On April 28th she was examined under an anæsthetic. She was very anæmic and emaciated, but she had no pyrexia on admission, and her pulse was about 90, and respirations not rapid. Under the anæsthetic it was found that the uterus was enlarged and the anterior surfaces felt rough. The sound passed 3½ inches, only one inch further than normally. On vaginal examination the cervix was bulky, the external os was split and dilated far enough to admit a finger into the cavity of the uterus, when a large, rough mass could be felt projecting into the cavity of the uterus from its anterior wall; a small fragment was removed for examination, a section of which showed under the microscope that the growth was "deciduoma malignum."

On May 2nd, 1898, vaginal hysterectomy was performed without material difficulty, as the uterus was not fixed by extension of the growth. For two or three days after she did well, but then began to be troubled by much gaseous distension of the bowel, which was not relieved by turpentine enemata. She became weaker, and died on the 6th day after the operation.

At the autopsy there was much intestinal distension, and slight localised pelvic peritonitis; no secondary deposits could be found anywhere, the lungs and vagina being quite free.

Description of parts removed by operation.—The uterus was considerably enlarged, and a mass of growth about the size of a walnut was found springing by a broad base of attachment from the right side of the fundus; its surface was uneven, and the mass was discoloured from effusion with blood.

This patient had slight intermittent pyrexia during the time she was in hospital, and her pulse rate remained below 100 except for a day or two before her death.

CASE 2.—Louisa B., æt. 48, was admitted on 4th March, 1901, under Dr. Horrocks, for hæmorrhages from the vagina. She had been married 27 years, and had ten full time children and four miscarriages. Her last full time child was born in November, 1896, and was followed by a three months' abortion in December, 1898. Menstruation then became normal until October 11th, 1900, when, being a fortnight overdue, she had a severe flooding, and, as she says, "lost large clots and pieces of flesh" (presumably this was an early abortion). She remained in bed for a month, but on getting up, had another flooding; she then remained in bed till her admission the following March, about four months later. In January, 1901, she complained of a foul-smelling, watery, greenish-brown vaginal discharge, and she became very wasted. In February she became short of breath, developed a cough and expectorated a good deal of yellow sputum, and on several occasions had slight hæmoptysis.

On admission she was extremely emaciated, and had a sallow cachectic appearance; she complained of severe pains in her back. Her temperature was 99°; pulse 88; respirations 20; rhonci and moist râles were heard all over the chest; the abdominal wall was very thin and flabby. On vaginal examination the cervix was split and the mucous membrane everted, smooth, and pink in colour, with Nabothian follicles projecting; it was freely movable. The body of the uterus was not easily felt, but was apparently enlarged; there was noticed a very foul brownish discharge.

Operation, March 8th.—Anterior colpotomy, with exploration of the interior of the uterus; foul, tough masses like placenta were discovered on the posterior wall of the uterine cavity. Subsequently vaginal hysterectomy was performed.

Examination of parts removed.—Uterus was 4½ in. long, its fundus was very bulky, and softer than other parts. On opening the cavity a soft pultaceous mass was seen on the posterior wall with a rough, slightly raised surface like a placental site, with blood clot and fibrin adherent. At the fundus there was a large breaking down necrotic mass invading the whole of the muscular wall, and just reaching to, but not invading, the peritoneum. Dr. Horrocks reports as follows on a microscopic section: "Masses of syncitium and blood clot with a tendency to invade venous sinuses and encroach on the interior of the vessel walls at the advancing margin. Discrete cells vary-

ing in size, not closely resembling decidual cells: protoplasm and nuclei closely resembling syncitial cells; practically no stroma or blood vessels. I cannot find any chorionic villi either normal or with proliferating epithelium." The patient recovered from the operation, and left the hospital on April 2nd.

Two months later she began to lose blood and died in a few days of symptoms suggesting secondary deposits in the lungs. No autopsy was allowed.

CASE 3.—Mary N., æt. 27, admitted on January 31st, 1903, under Dr. Galabin, for severe hæmorrhages from the vagina. She had been married ten years, and had five children, the youngest being born in April, 1901. Menstruation had been quite normal up to her last pregnancy; there was amenorrhœa till March, 1902, due to her suckling her child; she then had a sudden attack of abdominal pain accompanied by severe hæmorrhage, large clots coming away. She was admitted to Guildford Hospital in May, 1902, and was told that she was pregnant. The hæmorrhages continued till July, when pains resembling those of labour intervened quite suddenly. The next day she was anæsthetised, and a mole removed from the uterus weighing 10 lbs., which on examination proved to be hydatidiform. After this the patient was quite well for three months, and menstruation was regular till November, 1902, when a normal period was followed by continuous losing for three months. At the beginning of January, 1903, she developed a cough, and began to expectorate blood-stained sputum, and noticed that she was becoming thin and anæmic, and she began to have some difficulty in micturition. She was admitted to Guy's on 31st January.

On examination of abdomen, the uterus was felt much enlarged, rising in the mid-line to 1 inch above the umbilicus, and measuring about 4 inches in a transverse direction; its surface felt smooth, suggesting a soft, solid tumour which was slightly movable laterally. On vaginal examination, the cervix was high up and flush with the vaginal wall; a mass could be felt extending down the whole length of the anterior vaginal wall, about 1½ inches in width; its surface was uneven, but not ulcerated, and patches of deep bluish colouration showed through the mucous membrane; no bleeding was noticed, but it involved part of the urethral orifice, which was fixed. There were a few fine râles all over the chest with impaired resonance and absent breath sounds behind at the right apex.

After admission she had much vomiting and abdominal pain, became very weak, and died 13 days later. While in hospital there was some irregular pyrexia up to 101·5°.

At the post-mortem the uterus was found to be enlarged to the size of a five months' pregnancy, and omentum was adherent to the fundus. The growth appeared externally in lobulations varying in size and dark in colour. There were several nodules projecting into the base of the broad ligament on the right side of the cervix, and some were adherent to the bladder wall; they were of a deep claret colour, like organising blood clot. There were hæmorrhagic secondary deposits on the anterior wall and right side of vagina; these were submucous, and one was involving the peri-urethral tissue. On opening the uterus a very hæmorrhagic growth was found confined to the anterior wall. It was not ulcerated, and all the uterine mucous membrane was apparently intact, as the growth had invaded the muscular wall of the uterus, and had reached, but not pierced, its serous surface. The lumbar glands were enlarged. There was recent pleurisy, and both lungs were riddled with small "pin-head" growths looking like miliary tubercles. The bronchial glands were enlarged. Microscopic section showed much necrotic tissue and hæmorrhages everywhere; no syncitial masses could be seen, but lots of large cells with big nuclei. The secondary deposits showed the same large cells following closely the small arterioles.

CASE 4.—Eliz. J., æt. 28, admitted under Dr. Taylor in July, 1906, for an empyema following pneumonia.

She is married, and has had four pregnancies; two full time children, one premature labour at the seventh month, and her last pregnancy terminated in the passage of a hydatid mole in June, 1906. When in the ward for the empyema, it was discovered that she had a tumour in the posterior vaginal wall which had given rise to no symptoms, and was about the size of an almond. After operation for the empyema she was transferred to the gynæcological wards, and the vaginal tumour removed when it was found to be a chorion-epithelioma. There was no recurrence till January 9th, 1907 (about five months after the operation), when another small growth was found in the anterior vaginal wall, which was widely removed. After the first operation menstruation was quite regular, and not excessive until April, 1907, when vaginal hæmorrhage commenced for the first time. At the second operation the uterus was curetted, but no evidence of any growth was obtained. At the end of January another small tumour was removed high up in the anterior vaginal wall, and yet another a few weeks later. In April, when the vaginal hæmorrhages started, she had become very anæmic and wasted, and was rapidly losing weight. It was then found that the growth had infiltrated deeply the peri-vaginal tissues in front and had gone forward along the veins of the bulbi vestibuli involving also the clitoris and urethra. No tumour could be felt in the abdomen. She now complained of a good deal of pain which only morphia would relieve. On May 7th a pleuritic rub was heard for the first time at the right base, and she became dyspnœic, her respiration rate varying from 28 to 44 per minute. She died two days later, only

eleven months after the passage of the vesicular mole. During the last few weeks there was irregular pyrexia up to 102°.

At the autopsy.—The bronchial and mediastinal glands were enlarged, some of them containing growth. There were several hæmorrhagic nodules of growth scattered over the lower lobe of the right lung. There was a secondary deposit in one ovary. The uterus was enlarged, measured 4 inches in length, and its cavity lined with smooth discoloured mucous membrane, but quite free from growth, as also was the uterine wall. Two large masses of growth, measuring respectively 4 inches and 3 inches across, occupied the tissues in front of and on each side of the vagina. The base of the bladder and urethra were embedded in growth, and there was a mass originating in the clitoris and projecting below and in front of the urethral orifice. The vaginal mucous membrane was softened and eroded in three places, and reddish masses of growth could be seen protruding through. When fresh, the growth was friable, soft, purplish in colour, and very vascular, and there was an almost uniform extravasation of blood into the whole area of infiltration. Histologically the growth showed the structure of a chorion epithelioma.

CASE 5.—Alice B., æt. 38, was admitted on September 25th, 1908, under Mr. Targett, for persistent hæmorrhage following an abortion.

She had been married 15 years, and had four full time children and one miscarriage at the third month of pregnancy in February, 1908, this being her last pregnancy. Menstruation commenced at the age of 14, and had always been regular, painless, and not excessive. After the miscarriage she began to have frequent attacks of vaginal hæmorrhage with passage of large clots, at first coming on every two or three weeks, but very soon becoming almost continuous, so that she would hardly ever go for more than two or three days without losing. Between these attacks of hæmorrhage she also noticed a watery vaginal discharge which was not offensive in any way, or associated with any degree of pain. On June 3rd, 1908, she was curetted, but with only very temporary relief, as the hæmorrhage recommenced three weeks after the operation.

On admission, in September, her general health was quite satisfactory, and beyond slight anæmia nothing abnormal was noticed. On abdominal examination no tumour could be detected, but there was an area of tenderness on deep palpation over the hypogastrium. Per vaginam the cervix was somewhat patulous, the right uterine appendages felt thick, and the uterus was thought to be slightly enlarged. Under anæsthesia it was discovered that the sound passed 4 inches, the cervix was readily dilated up to a No. 16 Hegar's dilator, and the curette removed a considerable quantity of tissue, resembling placental tissue with the naked eye, from the posterior uterine wall. On microscopical examination it was shown to be chorion epitheliomatous in structure, and accordingly a vaginal hysterectomy was performed without difficulty, as there were no adhesions in the pelvis, and the uterine body was quite free. Recovery from the operation was uneventful and she left the hospital a month later. There was no evidence of the presence of secondary deposits in any part of the body, and there was no pyrexia during her stay in the hospital. There is no further record of her progress after leaving the hospital, but her chance of permanent cure appeared to be excellent.

Examination of parts removed at operation.—Both ovaries, being quite free, were left behind in the pelvis. The uterus, beyond being slightly enlarged, showed nothing abnormal on its outer aspect; on section, a small distinct nodule about the size of a marble was seen on the posterior wall near the fundus of a mottled red or maroon colour, and mostly embedded in the muscular wall of the uterus; the uterine wall showed a fair margin of infiltrated muscle beneath the peritoneum. Histologically the nodule showed the appearances typical of a chorion epithelioma, the majority of the cells being of the Langhan type, but a few masses of syncitial cells could be seen.

(*To be continued.*)

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

A Manual of Physiology for Students and Practitioners. By H. Willoughby Lyle, M.D., B.S., F.R.C.S. (Henry Frowde, Hodder & Stoughton.) Price 15s.

The object of this book, as stated in the preface, is "to place before the student, as concisely as possible, the chief facts of Physiology." As a collection of facts, then, the book must be judged.

It may be admitted at once that the book is a collection of statements, for there is but little discussion to be found in it; but a number of the statements are not facts.

As an example of lucidity and accuracy, the following passage may be quoted. In a section dealing with excretion, we are told "these substances, CO_2, creatinine, uric acid, urea (little), are derived chiefly as a result of katabolism, and partly from the food, *i.e.*, urea (more). During the production of these substances, heat is evolved, energy produced, and work done."

Since we are ignorant of the origin of creatinine in the body, we are not justified in saying that its production is accompanied by a liberation of energy, while the formation of urea is a very unfortunate example of an energy-liberating process.

On the same page (p. 73) appears the following table, which shows considerable originality.

"The following general proportions of the elements in proteins, fats and carbohydrates should be noted:—

Protein ... C_{54}, H_7, O_{21}, N_{16}, S_1 (C 1 in 2).
Fat ... ... C_{48}, H_{98}, O_6 (C 1 in 3) (high heat value).
Carbohydrate C_6, H_{12}, O_6 (C 1 in 4) (lower heat value)."

It is difficult to see why the "one atom, one vote" system, which gives such a striking result in the case of carbohydrate, should not apply in the case of protein. It is not clear how the figures representing "fat" have been obtained, but the student may at any rate exercise his chemical knowledge in devising a fat which shall have approximately the same composition as three molecules of palmitic acid, and may then calculate the "general proportions" by any method of proportional representation which seems suitable.

Another noteworthy table, showing the formation of urea, is given on p. 364. This table gives the impression (1) that the chief source of tissue erepsin is muscle, which tissue is, of course, particularly poor in this enzyme; (2) that erepsin decomposes the proteins of muscle; (3) that erepsin forms urea; (4) that the liver is not important as a source of arginase; while it concludes with the obscure statement, "Uric acid by uricolytic enzyme $= NH_3 + O =$ Urea."

The chapter on Blood is illustrated by a figure designated "The colourless blood corpuscles," which should have been improved or omitted. A portion of this chapter is devoted to the subject of immunity, and we are told that "antibodies are termed antigens"; however, in the rest of the sentence the word "antigen" is used in the proper way, by which time the student would be not a little confused. Lecithin acts as the complement, not as the amboceptor, of cobra venom.

Perhaps the least satisfactory chapter in the book is that on Respiration. It contains a number of tables, but the text does not make their meaning particularly clear. The tension of oxygen in the arterial blood of man is given as "38·5"; no hint is given of the unit here employed, and the repetition of this isolated number throughout the chapter is quite pathetic. Similarly, in the table of carbon dioxide tensions the unit is not stated. It is stated that the oxygen of oxyhæmoglobin is more firmly combined than that of methhæmoglobin, but in another part of the book the conventional view is given.

The xanthoproteic reaction does not indicate the presence of tryptophane, and the significance of Millon's reaction is repeatedly misstated. The blood-pressure does not fall to "zero" after separation of the medulla from the cord. The epithelium of the lens is not on the posterior surface. Tendons do not contain muscle-spindles. The cones are stated to elongate on exposure to light; in animals in which they move at all, they contract. Ten days' starvation is by no means a certain method of removing all glycogen from the liver.

No evidence is given for the statement that nucleic acid appears not to be formed in mammals from simpler materials. It is difficult to believe that no formation of nucleic acid takes place during the suckling period, and Burian and Schur demonstrated the formation of large amounts of purines during this time. The maintenance of health on a purine-free diet is also against this view.

There are many passages in this book which, while not altogether inaccurate, are misleading. The tissues do not "take up the bulk of the respiratory oxygen from the oxyhæmoglobin," since under ordinary conditions venous blood is about 50 per cent. saturated with oxygen. Mellanby's theory of creatinine metabolism should not be stated as a fact. The depressor nerve should not be described as "a regulator of the rate of the heart." That old habitué of the text-books, the experiment on the coronary nerve of the tortoise, appears with its usual false interpretation. The thyro-arytenoid and inter-arytenoid muscles are confused under the name "arytenoid." The polypeptides are treated as substances quite distinct from the proteoses and peptones.

The chapter on Hearing is filled up with a quantity of purely topographical anatomy. It is not necessary in a text-book of physiology to give the names of the different parts of the pinna (helix, anti-helix, etc.), nor the surface marking of the mastoid antrum, nor the exact course of the chorda tympani through the middle-ear. The statement that the auditory ossicles "somewhat" diminish the amplitude of vibration, and "slightly" increase the force is, to say the least, misleading. The section on "Labyrinthine Impressions" occupies half a page, and tells one practically nothing.

The account of the mechanism of accommodation is unsatisfactory, and the reader will not get any assistance from the figure (Fig. 107), for the ciliary muscle there represented could not have any action at all upon the lens. The close apposition of the ciliary processes to the zonula, the importance of which has been so clearly shown by Anderson Stuart, and which is so obvious in dissection of the ox eye, is not described.

The "Tests for Fatty Acids" given are the three following: (1) The decolourisation of phenol phthalein; (2) the reduction of osmic acid; (3) the acrolein test!

Considerable space could have been saved for amplification of some portions of the book if it had not been thought necessary to give two full and quite separate accounts of each of the following subjects: The preparation of nucleoprotein, the preparation of glycogen the tests for cholesterin, the musculature of the stomach, the formation of uric acid, the chemistry of indican, the superficial and deep reflexes in man, the degeneration and regeneration of nerve. Unfortunately, the statements repeated are not always concordant; thus, on pp. 163 and 166 we have two exactly contradictory accounts of the sympathetic innervation of the large intestine.

Some important matters are altogether omitted from the book. The dissociation of hæmoglobin is not described, and Edridge Green's work on colour vision is not mentioned. The methods of determining the body temperature receive very scanty treatment, and their

relative merits are not discussed at all. As examples of co-enzymes the author gives enterokinase, hydrochloric acid, and bile salts; this involves an altogether new application of the term "co-enzyme." The examples of these substances afforded by yeast zymase, and pancreatic lipase are not mentioned.

The author has undertaken a somewhat drastic redistribution of honours among physiologists. Bohr's work on the swim-bladder is attributed to Haldane. The discovery of the injury current, which was made by du Bois Reymond in 1845, is brought down to the present day and credited to Alcock, who is made responsible also for the word "Zincative," which was introduced by Waller. "Zincative" is said to mean electro-negative in the chapter on Nerve, and electro-positive in the chapter on Muscle.

The book has been put through the press somewhat carelessly. The arrangement of type of different sizes is in many places all wrong, and this is not only very irritating, but at times seriously misleading. There is an abundant crop of misprints, some of which have a humorous effect. We read of the characters of a muscle "twist," and of the "medullary strength" of a nerve. Nitroxy-hæmoglobin "seems to be even a more suitable compound than carboxyhæmoglobin." Since we are not told the purpose for which it is so very suitable, it would seem that "stable" is meant.

The best portions of the book are the anatomical descriptions of the heart and of the central nervous system. The sinu-auricular bundle does not connect the auricles with the ventricles. The account of the termination of the vestibular nerve in the medulla is at any rate heterodox. The figure showing the connections of the cerebellum has been simplified to the stage of inaccuracy.

The description of the afferent tracts of the cord is much better than that to be found in most text-books, and there is an interesting account of the circulation of aqueous humour.

Index of Practical Nursing. By J. Basil Cook, M.D., D.P.H., Senior Assistant Medical Officer, Kensington Infirmary. (Baillière, Tindall & Cox, Henrietta Street, Covent Garden, 1912.) Size: Crown 8vo., Price, 2s. net.

We can most heartily recommend this little book to nurses and students alike. As set forth in its title it is a clear and concise "Index *to* Practical Nursing," to change the preposition. Each subject is arranged in strictly alphabetical order dealt with in numbered paragraphs, and the most important item in each list of instructions is italicized.

The directions are lucid and very simple. Indeed, the author, like the famous actress, from the stage of his experience addresses the mind of the back row of the nursing world gallery, and wisely realises that those in the intellectual stalls can elaborate for themselves.

It is interesting to note points that are accentuated in one hospital and overlooked in another. In this way much can be learned.

Dr. Cook is most insistent that all limbs should be carefully shaved before strapping is applied, and that the strapping should be rendered adhesive by heat, not by the use of turpentine. His teaching on the tragic importance of strict surgical asepsis is good. There is always the danger that the very familiarity with good results may lead to carelessness. It is not easy for the inexperienced to distinguish between the sterile and non-sterile area and to consider, as Lord Lister taught to beginners, all outside the charmed circle, as covered with wet green paint.

Perhaps the next, and we hope larger edition, will contain more information on post-operative treatment. One omission we note; there is no mention of the infusion into the tissues of fluid, and a nurse's duties in regard to the patient and the apparatus used on such occasions, are manifold. Also in treating of rectal salines, the very useful regulating clip and dropper now generally fixed to the tubing is not advocated.

With these exceptions all nursing details are thoroughly practical and yet there is a nicety and refinement in all matters bearing on the patients' comfort that should appeal to the true nurse.

Manual of Surgical Treatment, Vols. I. & II. By Sir Watson Cheyne, C.B., and Mr. F. F. Burghard. New Edition in Five Volumes. (Longmans, Green & Co.). Price per volume £1 1s.

The volumes under review form the first two of an entirely new edition of this well-known work. The first is mainly devoted to the general principles of surgical treatment of wounds and inflammatory diseases, together with chapters on anæsthetics and the examination of the blood. The second deals with the injuries and diseases of the skin, facial muscles, bones, nerves, etc., with an account of all the chief amputations.

Much of them is, of course, taken up with non-controversial matter and contains nothing new. Wherever possible, however, full attention has been given to the latest methods of treatment in vogue, including a rather unnecessarily long description of the technique of treatment by salvarsan. One of the most valuable chapters is that on the examination of the blood, although this would have been better if more space had been given to the discussion of vaccine and serum therapy, and less to the well-known details of a blood count.

The short account of the various methods and indications for the administration of anæsthetics is one of the best we have read, but one is surprised by the cursory way in which the open method of ether administration is dismissed.

The section on the treatment of fractures is particularly good, especially in the discussion as to the indications for operative interference in recent fractures. An unnecessary amount of space seems to have been given to the description of the multitude of splints at present in vogue in various places. Much of this it seems to us could have been left out with advantage.

Cricket.

GUY'S v. CROFTON PARK.

Played at Honor Oak Park on Monday, May 27th. Crofton Park batted first and scored 222. Guy's bowling at the commencement of the innings was very weak indeed. Late in the innings Tooth found his length and got the "hat trick." When Birks and Vincent-Brown got together runs came very fast. They both hit out freely and played very good cricket.

The satisfaction of "Tussy" Tooth after doing the "hat trick."

CROFTON PARK.

T. F. Theobald, b Hunôt	65
H. B. Partridge, c Andrew, b Kennedy	35
W. Cotton, b Andrew	24
H. Cox, b Tooth	37
B. Knight, run out	4
H. Pearson, b Tooth	24
J. Day, b Tooth	15
H. Stanfield, c & b Andrew	2
J. Collins, b Andrew	10
H. Wright, b Kennedy	3
Extras	3
Total	222

GUY'S.

A. B. Bond, b Collins	0
J. Keer, c Cotton, b Collins	9
A. C. Hancock, c Partridge, b Day	5
F. Hunôt, b Cotton	16
A. H. Birks, c Cotton, b Partridge	91
J. Vincent-Brown, b Day	76
R. S. Kennedy, b Black	5
G. W. M. Andrew, b Stanfield	9
J. Biddle, not out	14
F. Tooth, not out	8
C. Portway, did not bat	0
Extras	12
Total for 8 wickets	245

GUY'S v. THE MOTE (Maidstone).

Played on the County ground at Maidstone on Saturday, June 1st. Maidstone batted first, and on an easy wicket were not long in collecting their large total. Guy's lost three wickets in very quick time, and things looked very bad till Keer and Hunôt got together. They both played excellent cricket, and were still unbeaten when rain stopped play.

MOTE.

Dr. J. H. Gibb, lbw, b Andrew	36
F. D. Thomas, c Biddle, b Andrew	96
Capt. S. Phillips, c & b Sampson	9
W. E. Hickmott, c Vicary, b Biddle	0
B. W. Hayner, c Bastard, b Biddle	9
B. Leney, b Vincent-Brown	71
F. Bishop, lbw, b Biddle	64
M. C. Mackey, c Sampson, b Hunôt	15
H. McAlpine, b Biddle	6
J. Long, b Biddle	4
Groves, not out	7
Extras	15
Total	332

GUY'S.

A. B. Bond, b Groves	0
K. J. T. Keer, not out	41
J. Vincent-Brown, b Groves	2
A. C. Hancock, b Leney	0
F. C. Hunôt, not out	39
Extras	7
Total (for 3 wickets)	89

B. F. Sampson, J. Biddle, G. W. M. Andrew, W. P. Vicary, B. Gripper, and J. Bastard, did not bat.

GUY'S v. HORTON ASYLUM.

Played at Epsom on Saturday, June 8th. It rained all the morning, so play was not possible till late in the afternoon. Guy's won by 6 runs.

GUY'S.

C. Montgomery, c Bambridge, b Dr. Foster	34
A. B. Bond, st Jenkins, b Lacey	17
A. C. Hancock, c Dr. Bartlett, b Lacey	0
F. C. Hunôt, b Lacey	7
C. Vincent-Brown, b Kendall	17
A. F. Rook, b Dr. Foster	0
Harris, b Bambridge	14
G. W. M. Andrew, b Bambridge	12

A. H. Harkness, b Bambridge	4
G. Nootl, not out	3
Sub, b Bambridge	6
Extras	12
Total	126

HORTON ASYLUM.

Dr. Roberts, lbw, b Andrew	34
Dr. C. J. Bartlett, c Montgomery, b Harris	48
Dr. Foster, b Harris	7
R. Roper, b Montgomery	6
C. Kendall, b Harris	5
H. Wheeler, not out	3
S. Bennett, c & b Harris	0
H. Larkins, b Harris	0
C. E. Lacey, b Montgomery	3
H. Bambridge, b Montgomery	0
J. Jenkins, b Montgomery	8
Extras	6
Total	120

GUY'S v. GRANVILLE (LEE).

Played at Lee on Saturday, June 15th. After a very exciting finish Guy's won by two runs. Montgomery and Sampson batted extremely well.

GUY'S.

A. B. Bond, b Col. Lewis	2
K. J. T. Keer, b Col. Lewis	23
A. H. Harkness, c Hall, b Col. Lewis	10
C. Montgomery, b Brymer	55
C. Vincent-Brown, b Brymer	14
F. C. Hunôt, b Brymer	0
G. W. M. Andrew, c Cockell, b Lincoln	21
J. Biddle, b Downey	27
B. F. Sampson, b Downey	34
T. Green, b Downey	6
F. Tooth, not out	9
Extras	14
Total	215

GRANVILLE.

N. Cockell, b Andrew	29
J. Anderson, b Biddle	18
E. Downey, c Keer, b Harkness	5
F. J. Hall, c Tooth, b Harkness	16
H. Dickens, c Biddle, b Harkness	31
Col. H. E. Lewis, b Harkness	18
A. C. M. Coxon, run out	7
F. E. Lauder, b Andrew	4
E. A. Brymer, c Montgomery, b Harkness	38
C. L. Lincoln, c Furze, b Harkness	14
P. P. Lincoln, not out	10
C. E. Percy, c Furze, b Harkness	0
Extras	23
Total	213

GUY'S v. UNIVERSITY.

(2nd round in the Inter-Hospital Competition).

Played at Hale End on Monday, June 10th. Guy's won by 200 runs.

GUY'S.

A. B. Bond, c Phillips, b Walker	1
K. J. T. Keer, c & b Phillips	31
A. H. Birks, b Phillips	2
C. Montgomery, lbw, b Walker	46
A. C. Hancock, b Phillips	1
A. F. Rook, c Avent, b Pearson	79
C. Vincent-Brown, c Phillips, b Walker	67
F. C. Hunôt, c Sunderland, b Pearson	7
G. W. M. Andrew, not out	42
A. H. Harkness, not out	21
F. Biddle, did not bat	0
Extras	28
Total (for 8 wickets)	325

UNIVERSITY.

J. W. Tanks, c & b Montgomery	9
W. T. Pearson, b Biddle	0
M. Avent, b Montgomery	10
P. Sharp, b Biddle	2
R. H. O. Tha, c Andrews, b Biddle	2
A. A. Henderson, b Hancock	27
E. B. Sunderland, c Birks, b Rook	16
W. J. Walker, c Birks, b Hancock	33
J. R. Bates, c Harkness b Hunôt	17
L. C. Phillips, b Andrew	1
A. E. Exley, not out	0
Extras	8
Total	125

Pass List.

The following have become entitled to the Diploma of F.R.C.S. 13th June, 1912 :—

C. C. Holman, T. D. M. Stout.

Births.

BARKER.—On May 15th, 1912, at Port Blair, Andaman Islands, to Captain and Mrs. F. A. Barker (née Amy Clarke), I.M.S., a son (Eric Auriol).

BEADNELL.—On June 10th, 1912, at Shrublands, 2, Sydenham Road, Croydon, the wife of Captain Herbert Beadnell, R.A.M.C., of a son.

HOLMAN.—On June 16th, at Furze Link, Denton Road, Eastbourne, to Mr. and Mrs. Henry J. Holman, a son.

PRICE.—On June 6th, at 57, Sloane Gardens, S.W., the wife of P. Seymour Price, of a son.

WORTHINGTON.—On June 17th, at the Sycamores, Birchington, the wife of H. E. Worthington, M.R.C.S., L.R.C.P., of a daughter.

Marriage.

MUNDEN—ARCHER.—On June 5th, at St. Mary's Church, Holford, by the Rev. J. W. W. Moeran, cousin of the bride, assisted by the Rev. W. B. Atherton, Rector of the Parish, and the Rev. D. H. James, Marwood Mintern, second son of Dr. Munden, of Ilminster, to Alice Muriel, youngest daughter of the late H. J. Archer, and of Mrs. Archer, of Alfoxton Park, Holford, Somerset.

Ed.—E. G. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 627.] JULY 6, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	265–266
A further Note on the Treatment of Summer Diarrhœa. By Dr. H. C. Mann	267–272
Pass List	272
Congenital Talipes. Clinical Lecture by R. P. Rowlands	273–275
London Bridge and the Borough in the Eighteenth Century (*continued*)	276–277
Papers by Guy's Men	277
Change of Address	277
Chorion Epithelioma Malignum (*continued*)	278–281
Appointments	282
Swimming Entertainment	282–283
Reviews, etc.	283
Cricket	283–284
Golf	284

Passim.

AS will be seen from the appointment list, published elsewhere in our columns, there are to be many changes on the junior staff in October, and, while congratulating those gentlemen who have joined its ranks, we would express our sense of loss at the impending departure of Mr. V. Townrow and Dr. C. H. Rippmann. Dr. Rippmann has for four years set us an example of unparalleled keenness, and the pass lists in Medicine have born eloquent testimony to the result of his energy, while medical ward-clerks have always found in him a kind friend as well as an extremely instructive registrar. We understand that Dr. Rippmann intends to practise in the West End, and we wish him all success, which, if he gets his deserts, he should achieve in full measure. To Mr. Townrow, also, we wish every success in whatever sphere he may be about to enter.

THE enthusiastic zeal of the newly-made convert is notorious, and in the conduct of the B.M.A. since it conversion to extreme trades-unionism we find a further example of this phenomenon. The last issue of the *B.M.J.* contained an editorial paragraph on "Locum-tenents, Assistants, Residents, and the Pledge," in which, after advocating as an essential policy the non-employment of locums or assistants who had not signed "the pledge," the following startling sentence occurs: "It may be assumed that those members of hospital medical staffs who are concerned in the selection of candidates for resident appointments are already alive to the importance of giving attention to this matter."

WE have already commented on the apparently unconsciously humorous position of the B.M.A. in its adoption of a policy hitherto associated with dockers, railwaymen, miners, and other supporters of the Labour Party, and now it appears that "peaceful picketing" is not sufficient for them, but they must needs advocate proposals which are entirely comparable with physical intimidation in the industrial disputes of the working classes. The social atmosphere of the profession does not permit of physical violence being applied to those opposed to the rulers of the B.M.A., but the analogous weapon of regulating appointments on resident staffs, locum-tenencies, and the like, is available, and they appear willing to use it despite their doubtlessly enthusiastic advocacy of "the right to work" in other spheres of controversy.

THIS attempt to take advantage of the peculiar position of the recently qualified man on the outlook for resident or locum appointments, in order to compel him to sign the pledge, is a course of action which we unhesitatingly condemn. In a large proportion of cases the anxiety to obtain such appointments would bring a man to commit himself to the pledge

without in any way realising either the rights or wrongs of the controversy over the Insurance Act, or the extent to which he is involving himself in regard to future work and prospects. It is, in short, an attempt to coerce the minority by playing upon their comparative ignorance on the one hand and their peculiar financial and professional position on the other. "Unanimity of the profession" gained by such means is no credit to its originators, nor, do we think, will it be found of practical political value. "Peaceful picketing" is, perhaps, not incompatible with the dignity of the profession in this crisis, but such methods as these offend not only against professional dignity but will assuredly serve to deliver it into the hands of its enemies.

THIS latest movement of the B.M.A. serves as a further example of the difficulties and dangers of the whole pledge-signing policy. Step by step the originally almost academical pledge has become converted into a vigorous trades-union weapon. We have had the pledge, the supplementary pledge, then the various Minutes extending their ramifications into most unlooked-for quarters, and now this final descent into coercive measures of the most extreme kind. We almost expect to hear next that the signing of the pledge will be made an essential factor in the satisfying of examiners. Truly the profession is finding itself immersed in deeper waters than was ever contemplated in its first rapturous plunge into opposition of the Insurance Act, but we feel confident that in its more thoughtful moments there will arise a feeling of regret and even amazement at the lengths to which this policy has been pursued.

THE Guy's Hospital Biennial Dinner was held at the Connaught Rooms on Friday, June 28th, and while constituting a record in point of numbers, was, if possible, even more successful than these festivals usually are. There is often a certain monotony about a large dinner at which men only are present, but on this occasion the dinner is but an excuse for good fellowship, and serves rapidly to break down the barriers which time has erected between old friends. Dr. Newton Pitt presided over a gathering of which Guy's may be justly proud, representing as it did all that is best in Medicine, its science, art, and practice, and showing above all that love for the old Hospital which is characteristic of Guy's men all over the world.

THERE were, as usual, no speeches. This may, to many, appear at first sight a disadvantage, but considering the unique character of the dinner, there can be no doubt that it adds greatly to the success of the evening. The toasts of the King, the Chairman, and Guy's Hospital and School, were given without preamble, and were as ever enthusiastically honoured. The chairman also proposed the health of the energetic and pains-taking Secretary, Dr. Fawcett, and the heartiness with which this toast was received, must in some measure have repaid him for the immense amount of work attached to his post. The arrangement of the tables, by which everyone is seated amongst the friends of his year, is one involving much labour on the part of the Secretary, but without which much of the pleasure of the function would be lost.

The artistic cover to the list of diners converted what might have been a mere programme into a charming souvenir, and Mr. Wingent is to be congratulated upon his share in its production.

The pleasures of a Biennial Dinner necessarily increase as time takes us further from the associations of the Hospital, and we therefore look forward with additional pleasure to the dinner of 1914.

THE last meeting of the Session 1911–1912 of the Pupils' Physical Society will be held on Monday evening, July 15th. Mr. Symonds will occupy the chair, and the Treasurer's Prize Essay on "The Symptoms, Prognosis, and late Results of Fracture of the Base of the Skull," will be read. This subject, upon which Mr. Symonds is an authority, should provide excellent matter for discussion, and it is hoped that a large audience will be present.

A further Note on the Treatment of Summer Diarrhœa.

BY DR. H. C. MANN.

Last September, in a number of the GAZETTE, I ventured to detail some notes on the treatment of summer diarrhœa, and to record some observations upon the digestion of cow's milk in the case of babies suffering from that disease. Those notes were the results of observations during the past six summers at the Evelina Hospital. A reference to case books and out-patient records is scarcely necessary to display the fact that in 1906 and 1911 the epidemic was severe, and that in the year 1910 it was comparatively of low incidence. The article in question did not relate to any particular year, but was the product of a heap of notes obtained during that time, watching each epidemic through to the end without taking a summer holiday. More recently, in preparation for the formation of a special department, I have analysed all the cases which came up to hospital between June 1st and October 31st of last year—some 1,500 in number—and the figures so obtained are, I think, worth recording. In practically every case the child was treated, both as regards feeding and drugs, upon the lines suggested in my paper, so that the results here published may be taken to refer to such general principles of treatment.

In Table I. will be found the weekly case incidence. For some time past it has been known that there is a tendency for the disease to show epidemic prevalence whenever the 4 feet earth thermometer shows a mean maximum temperature of 56° F., irrespective of the atmospheric record. The original observation is due to Ballard, and it has been confirmed by other observers. Last summer the observations, as taken at Greenwich, showed the mean maximum temperature to remain below 60° F. during June. There was a sharp rise with the first week in July and from that point a steady rise was maintained until the middle of August, in which week the incidence at the Evelina Hospital reached a maximum of 180 cases. During the following week, August 20th to August 26th, the mortality rate reached a maximum of 12, and during September a steady fall in the earth temperature was accompanied by a fall in the case incidence, so that during the last week of September only 59 new cases were recorded. These figures may be taken to be typical of epidemic prevalence in London last summer. They agree fairly closely with the findings of Dr. Dudfield, the Medical Officer of Health for Paddington, in which borough a voluntary system of notification was adopted by local hospitals.

TABLE I.

SUMMER DIARRHŒA IN 1911.

CASE INCIDENCE PER WEEK.

June	1	to June	3	5	Aug.	20 to Aug.	26	179
„	4	to „	10	14	„	27 to Sept.	2	144
„	11	to „	17	21	Sept.	3 to „	9	94
„	18	to „	24	17	„	10 to „	16	103
„	25	to July	1	27	„	17 to „	23	76
July	2	to „	8	18	„	24 to „	30	59
„	9	to „	15	25	Oct.	1 to Oct.	7	31
„	16	to „	22	56	„	8 to „	14	12
„	23	to „	29	91	„	15 to „	21	9
„	30	to Aug.	5	130	„	22 to „	28	5
Aug.	6	to „	12	160	„	29 to Nov.	4	Nil.
„	13	to „	19	180				

In Table II. is given an analysis of the total cases, which numbered 1,456. They are there arranged according to age and date of onset, the case mortality per month is given and also the number of deaths at various ages. All the 77 fatal cases died from summer diarrhœa. Eight fatal cases are not included in the list, and of these, five were due to broncho-pneumonia, one each to acute bronchitis, general tuberculosis and hereditary syphilis.

The table is interesting in that it emphasises the fact that a very large number of cases recover, even at the very earliest age. It is quite unnecessary to refer to the prolonged summer of last year or to mention the various meteorological records which were made in the matter of sunshine, high temperature, and minimum rainfall, but it is worthy of note that such phenomenal weather, bringing in its train the never-failing increased incidence of diarrhœa, was not followed by a corresponding rise in mortality rate. That statement is not merely derived from hospital experience, it was the unanimous opinion of men present at a meeting of the Lambeth branch of the British Medical Association, before whom I read a paper on this subject last November, and I have obtained similar evidence from medical friends of mine working in all the South England Counties, with whom I have been in correspondence and to whom I am indebted for information.

The next feature of importance is in connection with age-mortality. Out of 77 deaths no less than 71 occurred in the first year of life among 804 cases, while in the second year of life among 445 cases there were only 4 deaths,

and in the third year 123 cases were responsible for only 2 deaths. After the third birthday up to the fourteenth year there were no deaths among eighty-four cases. As is usual with all epidemic infective disease, summer diarrhœa exhibits a preliminary period, when it is of mild type, and a final stage, with falling ground temperature, in this instance, when the disease has spent itself; for this reason the mortality rate should especially be studied during the time that the disease is of increased severity and prevalence. A glance at Table I. shows that between July 16th and September 30th over 50 new cases were seen each week, and Table III. shows that practically all the deaths occurred between those two dates. The percentage mortality at the various ages under two years during this epidemic period works out as follows:—

Age.	Cases.	Deaths.	Percentage Deaths. Cases.
Under 3 months ...	132	15	11·3 p. cent.
From 3 to 6 months ...	162	21	12·9 p. cent.
From 6 to 9 months ...	159	15	9·5 p. cent.
From 9 to 12 months ...	237	19	8·0 p. cent.
Second year ...	392	4	1·0 p. cent.

Athough apart from the epidemic period there are a few deaths, none occurring last year among eighty-three cases in the month of June, yet there is much evidence that the disease is contagious, and I had several instances of contact cases during that month in members of the same family or immediate neighbours. This year I have started to issue warning notices as early as the first week in June. Isolated outbreaks of a contagious type may be observed in much colder weather, and one of these occurring in February, 1911, indistinguishable from "summer diarrhœa," where nine contact cases followed one another among three families, was reported in the *Journal of Hygiene*, by Drs. Bainbridge and Dudfield.

What is the explanation for the large number of deaths in the first year of life as compared with those in the second year, a figure which is out of all proportion to the case incidence at those two ages? It is undoubtedly due to the fact that almost all fatal cases are deaths from collapse, the result of profuse, frequently repeated and watery evacuations. Toxæmia is very rare. The post-mortem room shows us a small spleen with a wrinkled capsule; only exceptionally is it swollen and congested, the kidneys and the liver neither to the naked eye nor to the microscope show any appearances suggesting a general poisoning. It must be remembered that in the terminal stage of collapse the watery discharges may cease, only a little slime trickles from the anus, the child is cold, rigid, and motionless, a clinical appearance which suggests toxæmia, when as a matter of fact it is rarely present. On the other hand if toxæmia were a common cause of death, there would be no such marked dissimilarity between the mortality rates in the first three years of life. Experience teaches us that if a baby has reached the weight of eighteen pounds, all the chances are that it will recover even from an acute attack of choleraic type, provided that the child is brought up for treatment early, and that an attempt is made *at once* to control the diarrhœa. Some of the fatal cases of collapse and coma without urgent intestinal symptoms which have been recorded as severely toxic forms of epidemic diarrhœa are due to sunstroke, and this possibility should always be considered in the month of August.

My cases of summer diarrhœa fall into three clinical groups:—

1. A preliminary mild catarrhal enteritis with four or five evacuations during the *day* time and none during the night, is followed after a few days, a week, ten days or a fortnight, by choleraic watery discharge. Most of my cases fall into this group, and in the majority of them the initial mild diarrhœa was not thought to be serious, having been often neglected by the parent.

2. The child is taken ill much more suddenly, feeds are refused, vomiting often occurs, and as many as twelve evacuations, profuse, undigested, and foul smelling, are voided during twenty-four hours, that is to say during both day and night

3. After a sudden onset with a considerable rise of temperature and possibly a convulsion, profuse watery choleraic discharges are passed, often three or more in the course of one hour. There is a good deal of abdominal pain which is productive of shock with a rapid almost impalpable pulse, and this state is sooner or later followed by collapse. Though this type of clinical onset is by far the rarest of the three which I have described, the mortality rate is highest, varying in different epidemics between twenty-five and forty per cent. in the first year of life, recoveries being found more especially among children with a minimum weight of fifteen pounds and in those cases where it has been found possible to *control*, I do not say *stop*, the diarrhœa.

"RIP."

These notes of clinical types refer to some three thousand cases which have been seen during the past six years.

The subject of contact cases is one of considerable interest. Quite apart from the question of severity of attack at different age periods and among children who are already ill from some other disease, it has been my experience that contact cases among otherwise healthy infants are invariably severe. Very often the contact case is much more severely ill than the primary case, and it is especially among the former, that is to say among the contact cases, that an autopsy may show the unusual evidences suggestive of a general bacteriœmia with an enlarged soft spleen and lymphatic glands. If this observation of mine be correct, it suggests that the infecting organism or group of organisms do not attain their full virulence until they have undergone a preliminary period of incubation within the intestinal tract, and that when this stage is reached, choleraic symptoms appear with an increased danger of infection and of a severe attack for other children who are being nursed at close quarters in dirty homes. It was impossible last year to obtain reports from the homes of all severe cases, such a house to house inspection will only be possible when there is a system of compulsory notification to the Medical Officer of Health, but I endeavoured to get notes from many of the homes where there were multiple cases, visits being paid by our Lady Almoner at the Evelina, visitors from three of the Local Health Societies and from the Invalid Children's Association. Wherever these contact cases were found, the reports were that the home was dirty, kitchen refuse, often of some days' standing, was lying about uncovered, forming magnificent breeding places for young flies, and no attempt had been made to protect food from dust, flies or other insects.

A good deal of attention has already been directed by medical officers of health to the part played by flies in the spreading of infection, and there seems to be little doubt that, as carriers, they are the most universal cause of epidemicity. My visitors reported numbers of flies in all the living rooms where contact cases were found, and though in itself such a feature seems of little importance in a year when, owing to prolonged drought, there was an almost universal increase in the prevalence of flies, still there is interesting evidence of a close relationship between rise of ground temperature, prevalence of flies, and epidemic spread of diarrhœa. Last year, in the Borough of Paddington, observation stations were established where flies were caught from the second week of June onwards to the end of October, and Dr. Dudfield, in a most interesting paper communicated to the Epidemiological section of the Royal Society of Medicine, has shown by a series of curves the agreement between the various factors above mentioned. The rising fly curve, measuring the average weekly fly count per station, is shown to have been checked by rainfall on two occasions, in July and August, and to reach its highest point fourteen days later than the maximum earth temperature, which interval corresponds very closely with the time required for the hatching and metamorphosis of *Musca domestica*, while a rapid diminution in the number of flies follows the onset of wet weather with a falling earth temperature early in September. On the same chart the case incidence is seen to be highest with the maximum earth temperature, and the mortality to be highest a week later. To this point I have already referred.

The above-mentioned results at the Evelina will be found to compare favourably with other published figures of diarrhœa during last summer. Invariably will it be found that a lower mortality is obtained when an immediate attempt is made to check the diarrhœa without giving a preliminary purge, and to prevent, by suitable feeding and the administration of saline, the onset of collapse, which is so very largely responsible for fatal cases. Turning through my notes I find that I use a combination of Creosote with the Liquor Morphinæ Hydrochloridi (B.P.) far more than anything else, and the taste is best disguised by the Aromatic Elixir of the Codex. Many people are anxious about giving morphia to babies, "it must be given with caution," they say; but so must every drug that is of any use in medicine. Deficient renal excretion is no contra-indication for its administration, as morphia is excreted almost entirely through the gastro-intestinal tract, and the value of the drug in such conditions as uræmia and eclampsia is an established clinical fact. I always give a two-minim dose of the above preparation to a baby of average weight at four months, and by such a dose the diarrhœa will be *controlled*; that is to say, instead of fifteen or twenty evacuations there will be five or six. Such a result should be the objective, and if the mother is instructed never to wake the child for a dose of medicine there will be no trouble. I usually find that, to begin with, three to five doses are required in twenty-four hours, according to the age of the child, and when the diarrhœa is under control, I

continue the morphia with creosote twice daily for a considerable time. Constipation very rarely occurs at this stage. It is only when there is lung trouble that morphia is dangerous, but in the absence of such complications, which are rare with summer diarrhœa, the above-mentioned dose is quite safe for out-patient work. In the wards last year I noticed that my house-physician often employed a three-minim dose with advantage.

For the frequent offensive discharges which are so often seen during the second week of illness, I can find nothing so useful as creosote. I never give mercury in any form. I think that its use is contra-indicated, and I can find no evidence that it acts as a gastro-intestinal antiseptic in cases of acute cholera. Four children, under a year old, who had been under treatment for congenital syphilis with grey powder or perchloride of mercury during, at least, six months, and who were making good progress, all had summer diarrhœa last August, and had it very badly indeed; an attempt to continue mercury being followed by disaster.

The more I see of summer diarrhœa, the more convinced I am that the routine administration of brandy, often thirty minims every two or three hours up to four or six drachms a day, is bad. Such an amount is often prescribed and administered for a considerable period. For the first few days all seems well and the baby's condition appears to improve wonderfully. Then the trouble begins. The child's extremities become cold and clammy, all attempts at keeping the baby warm are unavailing, and strychnine, the finest rapidly acting stimulant which we possess, as a hypodermic injection, is singularly without effect. In addition, if the child is given nourishment, as is so very essential, any tendency to sickness is almost always increased. These experiences with alcohol are, after all, only in keeping with the results of physiological experiment.

In the matter of subcutaneous infusion it is better not to employ the "continuous" method. Admirable as is the invention of Dr. Carruthers for slow continuous infusion, it is not so useful an apparatus for babies with summer diarrhœa; push the fluid quickly into each axilla and have done with it, clear away your needles and tubing and let the child go to sleep. Saline infusion is the immediate treatment for collapse, especially for cases of choleraic type, but apart from collapse it is not required, and the universal life-saving properties which have been attributed to sea-water, are without foundation.

It is of the first importance to maintain the nutrition of the child. Lack of nourishment or insufficient food, like severe hæmorrhage, are complications which all small children, as distinct from adults, fight against with great difficulty and too often with failure. Especially is this the case with babies suffering from infective disease. Nor does it follow that a few days of semi-starvation will do no harm because a baby, weight for age, is above the average. A child weighing ten or eleven pounds at birth requires a correspondingly larger feed and a larger total quantity of milk per diem; in other words, feeding must be regulated by weight and not by age. Albumin water at the best is only a makeshift. As prepared in Bermondsey it is out of the question. It is almost invariably made from stale eggs, has a most revolting smell, and increases the liability to sickness. The whites of two eggs added to half-a-pint of water, provide only a two per cent. solution of albumin, and if new laid eggs are to be employed, the expense of six or seven eggs per diem becomes prohibitive.

For the above reasons I never order a preliminary starvation, but the child is fed from the beginning of the attack with small feeds of citrated milk given at intervals of one or two hours. Sickness is rarely troublesome as it is almost always due to curd indigestion, and the latter is prevented by this method of feeding. Some people consider that the milk itself is a poison in cases of summer diarrhœa, but the figures which I give in Table IV. show that this is not the case, as the weight of the child is almost always maintained, sometimes increasing a little, and the progressive emaciation, which always occurs when a child is starved or fed upon albumin water and brandy, is avoided. My experience of beef juice, beef tea, chicken or veal tea, has almost invariably been, that though the evacuations are not so bulky, yet the motions become more offensive, and the watery discharges more irritating to the skin of the buttocks and perineum. On the other hand, the stools which are passed when citrate-milk is employed are often neutral in reaction to litmus, they are much less offensive, skin eruptions are uncommon, and though the motion is bulky, the figures which I published last year support the view that a considerable amount of digestion is possible in cases of summer diarrhœa, judging by a comparison between the quantity of fat taken by mouth and that recovered after a careful analysis of the fæcal matter passed.

In some of the cases—Table IV.—of which I give the weighings, the child had been brought to

hospital, originally, not on account of summer diarrhœa, but for malnutrition, the result of prematurity, injudicious feeding, or some other infantile disorder; this is apparent from a study of the weights at various ages.

I am very much indebted to the Lady Almoner at the Evelina Hospital, Miss Ranking, who has done an enormous amount of visiting, reporting as to the conditions of home-life, the results of treatment prescribed, and giving general advice in matters of personal and household cleanliness.

TABLE II.

ANALYSIS OF CASES OF SUMMER DIARRHŒA, 1911.

ARRANGED ACCORDING TO AGE AND DATE OF ONSET.

Age.	June.	July.	Aug.	Sept.	Oct.	Total Cases of each age.	Deaths.
Under 3 months	17	27	73	39	7	163 under 3 months	15
From 3 to 6 months	17	41	100	33	4	195 from 3 to 6 months	21
From 6 to 9 months	13	36	96	33	4	182 from 6 to 9 months	15
From 9 to 12 months	11	33	145	65	10	264 from 9 to 12 months ...	20
Second year	18	55	209	138	25	445 in the second year	4
Third year	4	18	60	37	4	123 in the third year ...	2
Fourth year	Nil.	4	13	2	1	20 in the fourth year	Nil.
Fifth year	1	2	10	5	Nil.	18 in the fifth year	Nil.
Sixth year	Nil.	Nil.	4	4	1	9 in the sixth year	Nil.
Seventh year	2	1	3	4	Nil.	10 in the seventh year	Nil.
Eighth year and over	Nil.	1	15	10	1	27 in eighth and succeeding yrs.	Nil.
Total cases per month	83	218	728	370	57	1456 Grand Total Cases	
Case mortality per month	Nil.	15	41	20	1	Grand Total Deaths ...	77

TABLE III.

ANALYSIS OF DEATHS FROM SUMMER DIARRHŒA, 1911.

ARRANGED ACCORDING TO AGE AND DATE OF DEATH.

Age.	Died in Hospital, 54.				Died while an Out-Pat., 23.				Totals at each Age.
	July.	Aug.	Sept.	Oct.	July.	Aug.	Sept.	Oct.	
Under 3 months	2	5	2	1	Nil.	2	3	Nil.	15 under 3 months.
3 to 6 months	2	6	9	Nil.	1	3	Nil.	Nil.	21 from 3 to 6 months.
6 to 9 months	2	4	3	Nil.	1	4	Nil.	1	15 from 6 to 9 months.
9 to 12 months	1	5	4	4	Nil.	6	Nil.	Nil.	20 from 9 to 12 months.
Second year	Nil.	2	2	Nil.	Nil.	Nil.	Nil.	Nil.	4 in the second year.
Third year	Nil.	Nil.	Nil.	Nil.	Nil.	2	Nil.	Nil.	2 in the third year.
Totals	7	22	20	5	2	17	3	1	77 Grand Total.

TABLE IV.

WEIGHTS TAKEN DURING THE PREVALENCE OF SUMMER DIARRHŒA.

1. A. S., aged one month.—6.8, 7.8, 8.8 (2 oz. feeds, total 15 oz. to 20 oz.), 9.4, 10.0, 10.8, 11.0, 11.8. 12.0 (3 months, 20 oz.), 12.5, 12.13 (30 oz.), 13.3, 13.9, 13.14, 14.4, 14.8, 14.14 (5 months); 15.4; 15.12; 16.0 (6 months, 6 oz. feeds, 40 oz.). 16.0, 16.0, 16.0, 16.0, 16.2, 16.2 16.8, 16.8, 16.8 (8 months), 17.0, 17.4, 17.8, 17.10, 17.12; 17.1, 17.4; 18.0 (10 months), 18.9; 18.15 (11 months); 19.4.

2. G. W., aged six weeks (a premature birth).—4.10, 5.0, 5.11, 6.2, 6.7, 6.11 (3 oz. feeds, 25 oz. total), 7.0, 7.10, 8.3, 8.11, 8.12, 8.13, 8.12, 9.13 (4 months), 9.0, 9.2, 9.3, 10.3 (5 months), 10.8, 10.15, 11.4 (40 oz. total), 11.13 (6 months), 12.4, 12.15, 13.1, 13.9, 14.0; 14.12; 15.12 (8 months); 16.12 (9 months); 17.3; 17.12; 18.13.

3. K. B., aged six weeks.—5.8, 5.12, 5.12, 5.10, 6.0, 6.5, 6.10, 7.0 (3 months, 3 oz. feeds, 20 oz.), 7.6, 7.12, 8.0, 8.4, 8.10, 9.0, 9.4, 9.10, 10.9 (5 months, total 30 oz.); 11.0; 11.11; 13.0, 13.5, 13.7, 13.8, 13.10, 13.10, 13.14, 14.4, 14 9, 14.10 14.10, 15.0, 15.4, 15.10, 16.0, 16.8 (10 months, 40 oz. total); 17.0; 17.4; 17.6; 17.10; 18.0 (12 months); 18.8; 18.14,

4. P. B., aged six weeks.—7.0, 7.1, 7.0 7.1, 7.5 (feeds 3 oz., total 25 oz.), 7.13, 7.13, (3 months), 7.13, 7.14, 7.14, 8.0 (25 oz. total), 8.1, 8.4, 8.8, 8.12 (5 months), 9.7, 9.12, 10.1 (whooping cough, total 40 oz.), 10.4; 10.8, 10.12, 11.2, 11.8; 12.0 (8 months).

5. I. B., aged seven weeks.—4.12, 4.15, 5.2, 5.4, 5.6, 5.14, 6.2, 6.6, 7.0, 7.6, 7.10.

6. D. D., aged seven weeks.—6.12, 6.9 (breast feeding stopped, citrate milk started), 7.8, 7.12, 8.0, 8.4, 8.8, 9.2; 9.10; 10.2; 10.12; 11.8; 12.8; 13.0 (6 months, total 40 oz.); 13.12; 15.2 (7 months); 15.10; 16.4...2 months interval... 17.2, 17.2, 17.2, 17.4, 17.4; 17.8, 17.8, 17.12, 18.4; 18.14; 19.4 (12 months); 19.10; 20.0; 20.6.....21.4.

7. F. G., aged seven weeks.—6.0, 6.0, 5.8, 6.0, 6.8, 7.0, 7.8, 8.10 (total 25 oz.), 9.2, 9.4, 9.4, 9.5, 9.8 (4 months), 10.1, 10.3; 11.5; 12.0, 12.9 (40 oz. total); 11.13, 11.8, 10.13 (20 oz. total), 11.4, 11.3, 11.12, 11.14, 12.0 (40 oz. total); 12.10; 13.10; 14.10 (8 months, total 45 oz.); 15.14; 16.10; 17.8; 18.6; 19.4; 19.10; 20.0; 20.6 (1 year).

8. A. M., aged eight weeks.—5.8, 6.0, 6.1, 6.2 (total 20 oz.), 6.3, 6.8, 6.10 (3 months), 6.12, 6.12, 7.0, 7.8 (4 months), 8.2 (total 25 oz.), 8.10, 9.0, 9.12, 10.0 (5 months), 10.4, 10.10, 11.2.

9. J. H., aged two months.—6.2, 7.4, 7.8, 8.6, 9.0, 9.4 (total 25 oz.), 10.0 (total 30 oz.), 10.4, 10.10, 11.0, 11.8, 11.9, 12.1 (5 months), 13.0; 13.8; 15.0; 15.8, 15.8, 15.3, 15.3, 15.0, 15.2, 15.0 (8 months), 15.5, 15.8, 14.6, 14.8, 15.2, 15.9, 16.8 (total 40 oz.), 16.2 (10 months); 17.0; 17.14, 18.5 (11 months), 18.10; 19.0; 20.4 (12 months); 21.8 (13 months).

10. F. K., aged 10 weeks.—8.9, 8.10, 8.9, 9.4 (total 25 oz.), 9.8, 9.12, 10.0, 10.5, 10.9 (4 months, 30 oz.); 11.7; 12.3, 12.12, 13.4; 14.1 (6 months, 6 oz. feeds, total 40 oz.).....18.2 (10 months).

11. D. M., aged 10 weeks.—8.8, 8.8, 9.0, 9.2, 9.4 (3 months, feeds 2 ½-oz., total 25 oz.), 9.8, 9.12, 9.13, 10.2, 10.6, 10.10, (30 oz.), 11.0, 11.6 (feeds 3 oz.); 12.1 (feeds 3 ½-oz.); 12.8; 13.1 (6 months, total 40 oz., feeds 4 ½-oz.).....14.7 (7 months); 15.1 (8 months).

12. H. H., aged 12 weeks.—8.2, 8.10, 8.12, 9.0, 9.4, 10.1 (4 months, 30 oz.), 10.4, 10.2, 10.6, 10.8, 11.0, 11.8, 12.0 (6 months), 12.8; 13.4; 14.2 (7 months, 40 oz.); 15.1, 15.9; 15.14; 16.6; 16.12, 17.0 (9 months); 17.14.....17.15, 17.14, 18.2, 18.12 (11 months), 19.0; 19.8; 20.2 (12 months)... 22.0 (14 months)...23.2 (16 months).

13. M. C., aged three months.—8.8, 8.8, 8.5, 10.1, 10.4, 10.8, 10.13; 11.9; 12.7; 13.10 (30 oz.), 13.6 (6 months), 13.5, 12.13, 13.0, 13.2, 13.6, 13.12, 14.0; 14.10; 15.4.

14. F. W., aged three months.—8.4, 8.12, 9.2, 9.8 (4 months, 30 oz.), 9.12, 10.0.....11.0; 12.0 (6 months); 12.0 (bronchitis), 12.3, 12.8, 13.0 (40 oz. total), 13.8; 14.13 (8 months); 15.4, 15.6, 15.3, 15.3, 15.6, 15.10 (30 oz.); 15.14; 16.4 (40 oz.); 17.0 (11 months); 17.8; 18.0... ...19.8 (14 months).

15. K. B., aged four months.—10.2, 10.8, 10.12, 11.0, 12.0, 12.4 (30 oz.), 12.9; 13.0, 12.6, 12.1, 12.8, 12.10, 13.4, 13.12, 14.4, 15.0 (total 40 oz.), 15.6; 16.0 (8 months).

16. F. B., aged four months.—6.8, 7.0, 7.12, 8.0, 7.0, 7.12, 8.4, 8.0, 8.0 (30 oz.), 8.4 (6 months), 8.10, 8.9, 8.9, 8.13 (7 months), 9.0, 9.2, 9.4, 9.3, 9.3, 9.0, 9.0, 9.4, 9.9, 9.4, 9.4, 9.4, 9.7 (10 months), 9.12, 10.0, 10.2, 10.1, 10.8 (11 months); 10.15; 11.8 (12 months, 40 oz.); 11.8; 11.15; 12.4 (broncho-pneumonia as a complication at the age of ten months).

17. P. W., aged four months.—16.0, 16.4, 17.0, 17.0, 17.2; 17.0; 17.0; 17.2; 17.4 (7 months, total 30 oz.); 18.0 (feeds, 6 ½-oz.); 18.2; 18.8 (8 months); 20.0 (40 oz., 8 oz. feeds); 21.0; 22.0; 23.0; 24.0; 25.0 (11 months), 24.0, 24.0, 23.2, 23.4, 23.2, 24.8, 24.12, 25.0 (12 months); 26.0; 27.2.....30.0 (15 months).

Explanatory Note.—The figures given above indicate the weight in pounds and ounces. A "comma" between two weights signifies an interval of three days or a week, and a "semicolon" indicates a fortnight. Occasional notes among the weights give the baby's age at that particular time, the quantity of milk taken, and indicate the occurrence of complications.

The figures which are underlined refer to weights taken, twice a week, during the prevalence of diarrhœa.

Pass List.

University of Cambridge.

DEGREE OF M.B. CONFERRED.

H. W. Barber.

SECOND EXAMINATION FOR MEDICAL AND SURGICAL DEGREES. EASTER TERM.

PART I.—HUMAN ANATOMY AND PHYSIOLOGY.

J. H. Parry.

THIRD EXAMINATION.

A. H. Birks. | J. M. Jarvie.
J. B. Hance. | R. S. Kennedy.

C. Worster-Drought.

Congenital Talipes.

CLINICAL LECTURE BY R. P. ROWLANDS.

GENTLEMEN,—Congenital talipes is, of course, present at birth, but it is very rarely hereditary. By far the commonest variety is talipes equino-varus, in which the heel is raised and the fore part of the foot is turned inwards. The next common form is talipes calcaneo-valgus, in which the heel is depressed and the fore part of the foot turned outwards.

1. *Cause.*—The most important cause of congenital talipes is malposition of the feet "in utero," with overstretching of certain groups of muscles which become weak in consequence. For instance, with the ordinary position of the child in utero, with the knees flexed, the feet take less room when adducted and ventro-flexed into the equino-varus position. This position is especially likely to be maintained when the child is unusually large or there is a deficiency of liquor annii. Hence it is that male and unusually fine children are more commonly affected. In this position the antero-external group of muscles are overstretched and fail to develop their full power. On the contrary, talipes calcaneo-valgus is produced when the knee is straight instead of flexed, for then the foot takes less room when dorsi-flexed and abducted; therefore, this deformity commonly follows breech presentation, and is sometimes associated with congenital dislocation of the hip. In a few cases congenital talipes calcaneo-valgus may be paralytic, and it is then mostly due to spina bifida. I have known extreme bilateral congenital talipes equino-varus to be associated with depressed circular scars around the lower third of the legs, which were probably produced by the pressure of the cord round the legs.

2. *Diagnosis.*—There is generally a history of deformity from birth, but this is not always available in later years, and then it is important to distinguish congenital talipes from the various forms of acquired talipes, which are mostly due to some form of paralysis. Congenital talipes equino-varus is in a large majority of cases bilateral and symmetrical, and this is an important point in differentiating it from talipes due to infantile paralysis, in which the disease is frequently unilateral, and even when it is bilateral it is rarely symmetrical. The reflexes and reactions are not changed in congenital talipes, whereas they are diminished or lost in infantile paralysis. In talipes due to paralysis of the upper neuron, such as congenital spastic paraplegia and infantile hemiplegia or monoplegia the knee-jerks are exaggerated and the plantar reflex is extensor instead of flexor. In spastic paraplegia spasm of the calf muscles is evident and can be partly overcome by manipulation and by the weight of the body, thus correcting the deformity to an unexpected extent. There is often spasmodic contraction of the flexors of the knee and of the adductors of the thigh, and some mental deficiency. In Tooth's neuro-muscular paralysis, which rarely develops before five years of age, the knee-jerks are diminished or lost, the thenar eminences are wasted, and there is a history of the disease in the family. Friedreich's ataxy sometimes gives rise to talipes equino-varus. In this condition the great toe is dorsi-flexed into the erect position, the knee-jerks are absent, there is nystagmus and slurring of speech. Talipes due to the various forms of muscular atrophy is characterised by the absence of the knee-jerks and the distribution of paralysis and wasting or pseudo-hypertrophy. Congenital talipes equino-varus differs from all others in that the heel is turned in as well as raised, so that a deep circular crease is seen above and to the inner side of the heel. There is a flattening on the outer side of the foot just in front of the external malleolus, where the skin is often adherent and crinkled. The toes are not clawed.

3. *Treatment.*—Congenital talipes is one of the most difficult deformities to cure, for its complete correction demands a great deal of care and perseverance. I want to lay stress on two important points which are frequently forgotten: *a.* That the earlier the treatment is begun the more likely is a good result to be obtained; and *b.* that manipulations alone or instruments alone are not likely to be successful; the two must be combined. Manipulations should be commenced within a day or two of birth when the bones and ligaments are soft and the muscles are weak. It is then very easy to over-correct the deformity by manipulation. As the child gets stronger it becomes increasingly difficult to correct the deformity. But manipulations alone are of very little use unless the foot is maintained in the over-corrected position practically all day and all night, for the growth of all the structures of the foot is greatly influenced by maintaining it in a good position almost continuously. In this way the growth of the outer part of the foot is checked by pressure, and that of the inner part encouraged by traction. Slight alterations in the shape and inclination of the small soft bones of an infant are easily produced and become

very powerful, for good or ill, as the foot grows. For instance, a slight elongation of the outer border of the os calcis in an infant will become more and more evident as the bone increases in size. It is important to correct congenital talipes before the time at which the child naturally begins to walk. If the correction is complete, or nearly so, the weight of the body then confirms the correction, whereas, on the other hand, if the varus is at all considerable when the child begins to walk, the weight increases the deformity. I shall now endeavour to describe the treatment of congenital talipes equino-varus in detail.

4. *Manipulations.*—These are done twice a day by some intelligent person who is not afraid of hurting the child. It is important to see that the movements are carried out correctly and thoroughly, for parents often have the vaguest idea as to the movements, and when they are asked to do them do little more than rub the foot. For talipes of the left foot the lower part of the leg is grasped firmly by the left hand so as to prevent injury to the lower epiphyses. Then the right hand grasps the fore part of the foot, the thumb being on the dorsum just above the base of the great toe and the palm under the sole. The inner border of the foot then fits into the gap between the thumb and index finger. The fore part of the foot is then pushed out, or abducted, and the outer border of the foot tilted upwards (eversion) and the whole of the fore part of the foot pushed vigorously upwards (dorsi-flexion) and outwards. The movements are never jerky, and they are produced with gradually increasing force. As a rule the movements are not carried out thoroughly enough. They should be done repeatedly every morning and evening, and should occupy about ten minutes when both feet are deformed. When the lower epiphyses are firmly grasped as described above there is no fear of doing any harm by carrying out the manipulations very thoroughly. The correction of the deformity is maintained by means of some form of apparatus which is worn both night and day except for about an hour night and morning, when the patient is allowed to kick about freely. This promotes the muscular development and the circulation of the legs and feet. A variety of instruments has been used. When the child is very young very expensive instruments are out of the question, for they have to be renewed very frequently as the child grows so rapidly. At this stage a well-padded tin internal angular splint extending as high as the knee is inexpensive and efficient. The foot-piece is carried inwards beneath the sole so as to correct both the equinus and the varus. The splint is kept in position by means of Mead's strapping and unstretchable and washable Domette bandages. With older children straps and buckles are fixed on the splint so that it can be applied more easily. When the varus is extremely severe a straight piece of malleable iron with the corners smoothed off is well padded and applied along the inner border of the limb from the internal condyle to the great toe. The metal is galvanized to prevent rusting. The deformity is partly corrected and the splint is firmly applied. Then the lower part of the splint and foot can be well abducted together and over-correction thus obtained. In some cases a small poroplastic splint, opening along the front, is used and is very easily applied. Plaster of Paris is always to be avoided because of the atrophy of muscle which it induces. When the child is a few months old a modification of Scarpa's or Adam's shoe is used. This consists essentially of a circlet below the knee from which a metal piece extends to a foot piece, which can be moved to any desired position by means of racks. The instrument is applied and strapped to the foot in the deformed position, and then the deformity is gradually corrected by means of the racks and key. By means of the key the position of the foot can be regulated to a nicety. One rack produces abduction, another, eversion of the fore part of the foot; another, dorsi-flexion of the ankle, and another, abduction of the ankle. Extreme degrees of deformity in young children can be corrected by means of this apparatus and manipulations. It is rarely necessary to do any operation in cases seen soon after birth; but frequently the patients do not appear until they are several months old, and occasionally apparatus and manipulations are insufficient. Then operations have to be performed. It is better to correct the varus first by dividing the tibialis anticus subcutaneously, for the shortening of the heel tendon by fixing the os calcis makes it easier to correct the varus. When the varus has been well corrected and manipulations have failed to correct the equinus, then the tendo Achilles can be divided and, if necessary, the tibialis posticus as well. If the deformity is still incompletely corrected when the child begins to walk, a walking apparatus is essential. In some cases double steel or duraluminium supports, extending as far as the knee, with a T valgus strap and toe-raising spring, is all that is necessary. In many cases, however, the whole of the lower limb rotates inwards,

and this can only be prevented by carrying the instrument as far as the pelvis. An inside steel support extends from the heel to a circlet below the knee, and an external steel extends to a pelvic girdle.

Now the metal support can be made of dur-aluminium, which is very light. It is not sufficient for the child to have a day instrument, but he must also continue to use a night instrument to maintain the correction during sleep. It is rarely necessary to do anything in the way of an operation beyond tenotomies for a child under three years of age. For older children with extreme deformity many operations have been tried, but none of them are so successful as the one I shall presently describe, and which I have performed for some years now. Removal of the astragalus leaves an ugly inelastic foot and a peculiar gait with instability of the ankle. Phelp's operation, which consists of a deep incision through the skin and all the soft parts on the inner side of the foot, is a painful and tedious procedure which is generally followed by relapse. The removal of a hap-hazard wedge from the outer border of the tarsus shortens the foot and does not correct the varus of the hinder part of the foot. The excision of a wedge of the body of the astragalus from within the ankle-joint as recommended by some surgeons is not so effective in correcting the deformity, and has the great disadvantage of interfering with the stability and natural hinge-like movement of the ankle-joint. The operation which I perform for bad cases is as follows :—

The plantar fascia, tendo Achilles, and tibialis posticus are tenotomised, and the deformity is corrected as far as possible by forcible manipulations. In some fairly severe cases this is sufficient. If it is insufficient an elliptical piece of skin is excised from the front and outer side of the ankle, the incision extending from a little in front and below the internal malleolus to the outer border of the foot, about an inch and a half behind the base of the fifth metatarsal bone. A tourniquet is always applied round the lower third of the thigh after the leg has been well raised. Much more accurate work can be done if a tourniquet is applied. The musculo-cutaneous and external saphenous nerves are seen and avoided. The fore part of the foot is adducted and a longitudinal incision is made along the outer side of the prominence of the head of the astragalus. The entensor tendons are separated, the capsule of the joint is opened and a knife is introduced into the joint and used to divide the ligaments attached to the neck of the astragalus from within the joint. The fore part of the calcaneo-astragaloid ligament is also divided in a similar way. The neck of the astragalus is then divided by means of a Macewen's osteotome. A variable amount of bone is removed according to the degree of the deformity. When the varus is extreme much more of the outer than inner border of the astragalus is removed. A similar longitudinal incision is made over the prominence of the fore part of the os calcis, the peroneus brevis being drawn downwards. The calcaneo-cuboid joint is opened, and the fore part of the bone is isolated by dividing the ligaments from within the joint as before. Then a wedge-shaped piece of the fore part of the os calcis is removed with a Macewen's osteotome and bone forceps. In extreme cases the base of the wedge is about an inch and a half wide. It is a little more difficult to remove this bone than the astragalus, which can easily be turned out with the chisel. The fore part of the foot is then brought up and out to see if enough bone has been removed. If the deformity is not completely corrected more bone is removed. It is a great advantage to have no blood interfering with the view so that the work can be done more accurately and more rapidly, and any projecting piece of bone maintaining deformity can be easily seen and removed. The tendon of the tibialis anticus is divided at its insertion to the internal cuneiform and the scaphoid, and then drawn under the extensors of the toes and sewn with catgut to the dorsal ligaments of the calcaneo-cuboid joint and the dorsal periosteum of the cuboid. The wound is then closed by interrupted salmongut sutures, care being taken to avoid inversion of the edges. Aseptic dressings are firmly bandaged on before the tourniquet is removed. If this is carefully done and the foot elevated after the operation there is very little bleeding or pain. A back splint and foot piece are applied until the stitches are removed and the wound is healed. Then a Croft's plaster splint is applied and used for three weeks, when the patient can begin to walk about again with the aid of his walking instrument. As a rule, such an instrument is used for about a year to prevent the recurrence of deformity ; then an ordinary boot is used. The foot is lengthened by this operation, for the key-stone of the compound equinus and varus arch is removed. I have watched the results of the operation for some years, many of the patients attending at Orthopædic Out-Patients just to show themselves once or twice a year. The results are even more satisfactory than I dared hope when I first introduced the operation.

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 251.*)

THE INNS.

"*Great rambling queer old places they are, with galleries and staircases wide enough and antiquated enough to furnish materials for a hundred ghost-stories.*"—DICKENS.

On Friday, May the 26th, 1676, the Great Fire of Southwark swept along St. Margaret's Hill and 'Long Southwark,' as the High Street was called in those days, nearly as far as St. Thomas's Hospital and St. Saviour's Church, which only escaped by reason of a providential change in the direction of the wind. All the inns mentioned by Stowe in 1603—"the Spurre, Christopher, Bull, Queen's Head, Tabard, George, Hart. Kinge's Head, etc.," were destroyed, at least partially; but, by the eighteenth century, all, except the Christopher, had risen anew from their ashes.

An ancient tavern known as the 'Bear at Bridge Foot,' standing at the southern end of London Bridge on the western side of the street, with gardens that extended to the river, was built in 1319. Samuel Pepys used it on several occasions, landing at this point after being ferried across the river. It was destroyed in 1761 when the approach to the bridge was widened.

The Boar's Head, across the road, a little to the north of the hospital, was another inn which had survived from ancient times. It formed part of the benefaction to Magdalen College, Oxford, of the Sir John Fastolf, who figures in Shakespeare's plays. He served with distinction in the French Wars of the fourth, fifth and sixth Henries, and from his town house, in what is now Tooley Street, resisted the insurrection of Jack Cade. The Boar's Head premises were converted into a court of 11 tenements, which were removed about 1824 for the new London Bridge approaches.

The majority of the Borough inns remained until the middle of the last century, although many were in a ruinous condition and had lost the characteristic tiers of galleries which, in Elizabethan times, had served to equip the inns for their secondary function as play-houses. A small remaining portion of the galleries in the Queen's Head Yard was removed within the last fifteen years; and, to-day, the southern half of the old George alone stands to illustrate the character of the eighteenth century inn.

Historically, the most interesting of these hostelries were the Tabard and the White Hart, both very different in olden days from their degenerate descendants which now occupy the old sites. The Tabard dates its history from the year 1307, when the Abbot of Hyde, Winchester, purchased the land at this situation and erected on it a hostel or town-house for the lodgment of his retinue when parliamentary duties called him to London. The Abbot's dwelling remained, but the hostelry adjoining came to be used for secular purposes, and especially as a meeting-place for pilgrims intending to embark on a "conducted tour" to one of the holy shrines.

Geoffrey Chaucer, the "father of English poetry," utilised the idea of such a journey as the cord on which to thread his rosary of metrical *fabliaux*. It is improbable that his characters actually took the road to Canterbury together. In "The Canterbury Tales" the band of pilgrims—"wel nyne-and-twentye in a companye"—on April the 2nd, 1380, assemble at "the Tabarde, faste by the Bell," to set out for the shrine of St. Thomas à Becket under the conduct of Herry Bailly, the Host of the Inn." We may, perhaps, glance at the "Doctour of Phisik . . a verray parfit praktisour" who was of the party.

"In all this world ne was ther noon hym lik,
To speke of phisik and of surgerye;
. . . . . .
Of his diete mesurable was he
For it was of no superfluitee
But of greet norissyng and digestible.
His studie was but litel on the Bible.
. . . . . .
And yet he was but esy of dispense
He kepte that he wan in pestilence
For gold in phisik is a cordial,
Therfore he lovede gold in special."

He was dressed in crimson and blue, lined with taffeta and silk, a costume which at the present time would be considered rather too conspicuous, apart from Prize Day. The Tabard, from which the inn is named, was, as Stowe puts it, "a sleeveless coat, whole, before, open on both sides, with a square collar winged at the shoulders: a stately garment of old time, commonly worn of noblemen and others . . their arms embroidered or otherwise depict upon them"—in the original literal sense, a *coat of arms*—now only worn by heralds.

After the Southwark Fire in 1676, for some reason the sign was changed to the Talbot, a pet dog, somewhat of the whippet build, such as may be seen wearing a collar of hawk bells, on mediæval sculptured tombs, serving as a foot-rest to the lady, while the knight's feet commonly are supported by a small effigy of a lion.

The signboard swung from a beam across the roadway which was supported by upright posts, and bore the inscription: *This is the Inn where Sir Jeffrey Chaucer and the nine-and-twenty pilgrims lay in their journey to Canterbury*, 1383. The beam was removed in 1763, and the inscription transferred to the archway facing the street. What was then exhibited as the "Pilgrims' Room" in reality dated no earlier than the reign of Elizabeth, when the last of the building, as Chaucer knew it, was demolished. In the middle of the last century there remained the stone-coloured wooden balustrade of Elizabethan times, in front of which was shown a picture of the Canterbury pilgrims said to have been painted by William Blake. At that time the ground floor was already let out as luggage offices of carmen and railways. On the left an old wooden staircase led into the gallery behind the balustrade. To the right the yard extended to some distance and then turned at right angles into a sort of long back court, the buildings on either side communicating by a light wooden bridge thrown across it.

The White Hart was perhaps even older than the Tabard. In 1450, when Jack Cade, *alias* Mortimer, *alias* John Amend-All, brought his insurgent mob to London he made this inn his headquarters.

"Hath my sword therefore broke through London Gates that you should leave me at the White Hart in

Southwark ? "—Shakespeare, King Henry VI., iv., 8.

In front of this inn the headless body of Lord Say was quartered.

Jack Cade sacked the prisons of the King's Bench and the Marshalsea. On Sunday night, July the 5th, 1450, he fought one of the many battles that have been waged on London Bridge. In 1008, King Olaf of Norway (afterwards martyred and canonised) fought there; in 1264 Simon de Montfort repulsed King Henry II.; and the insurgents under Wat Tyler (1381), Cade, Faulconbridge (1477) and Sir Thomas Wyatt (1552), in turn attempted to force a passage across the bridge.

In the middle of the last century the Catherine Wheel was one of the best preserved of the Borough inns. It stood on the western side of the street in the yard now occupied by the Midland Railway. The name was derived in early times from an order of knighthood whose special function was the protection of pilgrims; an inn bearing the badge (representing the instrument of the Saint's martyrdom, a spiked wheel) of the knights of Saint Catherine was expected to make a special appeal to those about to undertake a pilgrimage.

The King's Head bore as its sign a half-length portrait of Henry VIII.

The Green Dragon in "Foul Lane," now Bedale Street, opposite St. Thomas's Street, was originally the town house of the Cobhams. It subsequently became, in the early eighteenth century, the Southwark post-office.

We have noticed among the old inns below St. George's Church the White Horse. To-day the site is occupied by a public-house bearing the name of the Flying Horse. It is possible that the old inn modified its name when, as the present inscription states, it became a recruiting station for the 15th or King's Light Dragoons a hundred years ago or more by adopting a regimental nickname.

A propos, how many people in these days of motor traction think to look for the *white horse* which, tradition asserted, was always to be seen on London Bridge? Before the coming of the taxi and the motorbus, one could usually make out at least one grey among the horses in the old days of congested traffic before the bridge was widened. The proverb took its origin from the effigy of the *White Horse, rampant* (which has been the cognisance of Kent since the days of Hengist and Horsa) stamped on the numerous hop sacks which used to cross the bridge.

Among the curious inn names formerly to be seen in the Borough was that of the "Tumble-down Dick," situated in what Ned Ward (1711) called "the dirty dominion of the Mint." The sign is usually represented by a drunken man tumbling over. But its original meaning is said to have been a satirical caricature on Richard Cromwell, the second Protector, who not only fell rather ignominously from the lofty position for which he was not qualified, but was said to have had a leaning (*post, ergo propter*) towards the bottle.

Yet another strange name for a Southwark inn noted by Andrews in his Anecdote History of Great Britain (1794), and vouched for by Mrs. Piozzi, was "The old Pick-my-Toe"! The figure on the sign represented the well-known statue (the *Spinario* of the Vatican, and elsewhere) of the Roman slave removing a thorn from his foot.

(*To be continued.*)

Papers by Guy's Men.

Harold Chapple, M.A., M.C., F.R.C.S.: Two Cases of Pneumococcal Vulvo-vaginitis in Children. — *Lancet*, June 22nd, 1912.

Percival P. Cole, F.R.C.S., M.B., B.Ch.: The Müllerian Origin of Some Broad Ligament Cysts.—*Journal of Obstetrics and Gynæcology of British Empire*, May, 1912.

Henry Davy, M.D. Lond., F.R.C.P. Lond.: Some Remarks on Dilatation of the Heart.—*Lancet*, June 22nd, 1912.

Reginald Hayes, M.R.C.S., L.R.C.P.: The Treatment of Syphilis of the Nervous System by Aachen Methods.—*Practitioner*, July, 1912.

D. W. Samways, M.D., D.Sc.: Memorandum on the Genesis of the Venous Pulse.—*British Medical Journal*, July 22nd, 1912.

Sir Geo. Savage, M.D., F.R.C.P.: Notes on Some Dreams and Their Significance.—*Bristol Medical Chirurgical Journal*, June, 1912.

Also: Some Relationships between Fits and Mental Disorders.—*Practitioner*, July, 1912.

Bernard Secretan, M.B., F.R.C.S.: Surgical Shock.—*Practitioner*, July, 1912.

Percy E. Tressider, M.R.C.S., L.R.C.P., in conjunction with Stanley Tressider, M.R.C.S., L.R.C.P.: Treatment of Syphilis by Salvarsan, or "606."—*Practitioner*, July, 1912.

A. H. Tubby, M.S., F.R.C.S.: Orthopædic Surgery.—*Practitioner*, July, 1912.

Change of Address.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

O. Bowen, M.R.C.S., L.S.A., from Mere Lodge, Everton, to 110, Sheil Road, Newsham Park, Liverpool.

F. G. Cross, F.R.C.S., from "The Gables," Beaufort Road, Kingston-on-Thames, to c/o Bank of British West Africa, Las Palmas, Grand Canary (Nov. 1st to June 1st), and c/o Bank of British West Africa, Leadenhall Street, E.C. (1st June to 1st Nov.).

W. P. Henley Munden, M.D. Lond., to Ilminster, Somerset.

C. H. Housden, L.D.S., from Guy's Hospital, to 21, Warrior Square, St. Leonards-on-Sea.

A. B. Hudson, M.R.C.S., L.R.C.P., from 32, Linden Road, Bexhill-on-Sea, to 907, Government Street, Victoria, B.C., Canada.

D. Wain, L.D.S., from Guy's Hospital to the Grange, Ripley, Derby.

Gazette Special Pathologist.

H. L., MANCHESTER.—This material has the structure of an inflammatory lesion in glands which we believe to be tuberculous. It consists of a necrotic mass surrounded by inflammatory tissues with giant cell systems.

PATHOLOGIST.

Chorion Epithelioma Malignum.

A Report of Seven Cases occurring at Guy's Hospital.

BY G. MAXTED.

(*Continued from page 260.*)

CASE 6.—Gertrude J., æt. 27, admitted under Mr. Targett, on 29th January, 1911, for "swelling of the abdomen."

She had been married in 1906, but had no children. Menstruation commenced at 13, had always been regular and painless since her marriage till the end of 1908. In January, 1909, she had an abortion; the period of gestation is unknown, as she appears to have menstruated throughout. She remained in bed for 14 days with "inflammation of the womb," and for the next 18 months there was a slight continuous flow of blood from the vagina. In July, 1910, on seeking a doctor's advice she returned to bed for a few days, and the hæmorrhage ceased. From then, till January, 1911, there was no losing of any sort per vaginam. When the bleeding ceased she began to have pain in the lower abdomen and back, coming on almost daily in attacks; this got more severe, and in December, 1910, she noticed her abdomen was rapidly getting larger, and that she was getting very wasted and anæmic. Early in January she had a slight attack of pleurisy, which soon cleared up. There is no history of any cough or hæmoptysis. Micturition was unaffected, except for slight pain on passing water.

On admission she was very pale, thin, and anæmic, and looked very ill; her pulse was rapid, 138, and she was very dyspnœic, making it difficult for her to talk. There were no physical signs of disease in the chest. The abdomen was enlarged, and two tumours could be felt rising from the pelvis, one on each side of the middle line; the right hand one was the larger and felt firm, but not hard like a fibroid, and was tender, reaching nearly up to the umbilicus. The left hand one felt cystic and reached to the iliac crest. On vaginal examination the os was soft and pushed to the left and slightly backwards; through the anterior fornix a hard tumour could be felt bulging in front and to the right of the uterus; bimanually it felt solid, but not very hard, and was distinct from the uterus, resembling an ovarian tumour; the left tumour was thought to be a pregnant uterus.

On February 6th laparotomy was performed, followed by panhysterectomy and double ovariotomy. The tumours were both ovarian in origin; the left one was the size of a lemon, multilocular, and not adherent; the right one as large as a cocoanut, nodular, apparently solid, and adherent to the base of the broad ligament, which was much thickened by solid growth. The uterus was enlarged and its surface uneven. The uterine body was amputated through the cervix, and the cervix then excised. It was found impossible to remove all the growth at the base of the right broad ligament. Both ovarian tumours were removed. She recovered from the operation, but her general condition became worse, her pulse remaining between 130 and 160 without any pyrexia. When the stitches were removed on February 18th, her liver was found to be much enlarged, and she then began to have fits of coughing without hæmoptysis or expectoration. She died from exhaustion 21 days after the operation.

The autopsy showed masses of hæmorrhagic growth scattered over both lungs, and in the right lobe of the liver, which weighed 2,336 grams. A large mass of growth was found in the thyroid gland, and another mass in the right psoas muscle extending over the brim of the pelvis.

Examination of parts removed at operation.—The uterus was the size of a three months' pregnancy, and its surface was bulging to the right and behind. On the right side the section of the broad ligament passed through a mass of dark friable growth continuous with the bulging uterine wall. The right uterine wall was 2 inches thick, and contained a mass of dark red friable growth. There were several smaller masses in the walls. The mucous membrane was healthy and the cavity empty and small. The right ovarian tumour was dark bluish in colour, and was made up of a solid mass of growth similar to that found in the uterine wall. The left ovarian tumour was a mass of cysts varying in size from a pea to a golf ball, containing straw-coloured fluid, and lined by soft membrane of a yellowish colour which was detachable from the capsule. The right tube was infiltrated, thick, and tortuous, and contained the same solid masses of growth.

Microscopical examination of sections from the uterus, right ovary, tube, and lungs, all showed the typical characteristics of chorion epithelioma. Those from the uterus and ovary showed large areas of necrosis. The masses of syncitium and Langhan's cells showed best in the section from the tube. Sections from the left ovary showed the cysts to be formed entirely from lutein cells.

CASE 7.—Mary B., æt. 39, admitted under Mr. Targett, on 3rd April, 1912, for excessive and irregular bleeding of eight months' duration.

She is married and has had nine full time children, the youngest child being born in May, 1909, this being her last pregnancy. She has had two miscarriages, one four months after marriage, and the other after the birth of her second child. Menstruation commenced at the age of 17, had always been quite regular, every four weeks, painless, and fairly profuse, lasting about six days. After the onset of a normal menstrual period in August, 1911, she began to lose profusely, and instead of ceasing at the end of the week, she continued to lose irregularly almost every day. This state of affairs lasted until her admission in April, 1912. She has never had any severe floodings, and the hæmorrhage from the vagina, although persistent, has not increased in severity.

About three months before her admission she began to have attacks of pain of a shooting nature in the lower part of the abdomen, but she is very vague and indefinite about them. Three weeks before admission she developed a cough, and is said to have expectorated sputum stained with blood. This rather startled her, and was the cause of her coming to the hospital for treatment. Since the onset of the symptoms in August, 1911, she had become decidedly pale and anæmic, but had not noticeably lost weight, although her general health was somewhat impaired, and her appetite had become poor. The bowels had always acted regularly, and micturition was not affected in any way.

On admission she looked far from well, and was very pale and anæmic, but emaciation was not a marked feature. There was a troublesome cough, but no expectoration of any sort. A vaginal discharge was present, moderate in quantity, blood-stained, but quite odourless, and she had no abdominal pain.

On examining the abdomen, a tumour could be felt in the mid-line rising up from the pelvis to within 2 inches of the umbilicus; it was firm in consistence, not cystic, and resembled a five months' pregnant uterus. The glands in the groin were not enlarged. On separating the labia, several dark masses could be seen just inside the ostium vaginæ, the largest being about the size of a walnut. They extended up the anterior and lateral vaginal walls on either side of the anterior column of the vagina for about 2 inches, mostly protruding beneath the mucous membrane, and of a characteristic purplish blue colour, but in several places the mucous membrane was ulcerated through forming small superficial ulcers, which bled very readily when touched. There was very little induration round them. The posterior wall and upper part of the vagina were quite free. The cervix felt and looked quite normal, and the external os was closed.

On bimanual examination the swelling in the abdomen was shown to be an enlarged uterus. A small piece of growth from the vaginal wall was removed for microscopical examination, and showed the characteristics of a chorion epithelioma. On examining the chest there was a small area of diminished resonance in the left axilla, and a pleuritic rub with moist râles could be heard at both bases. These signs, in association with her symptoms, led to a diagnosis of secondary deposits in both lungs.

On April 11th she was anæsthetised with A.C.E., and on bimanual examination small, shotty masses could be felt at the base of the left broad ligament outside the enlarged uterus. The majority of the secondary deposits in the vagina were removed where ulcerated. It was intended to do a pan-hysterectomy, but the patient's condition under the general anæsthetic was so bad that the operation was postponed.

On April 18th the patient was anæsthetised with ether given by the intravenous method, and pan-hysterectomy was performed by the abdominal route as rapidly as possible, as she was very bad, and on one or two occasions almost pulseless. The uterine appendages were removed with the uterus, which was the size of a four months' gestation. No enlarged glands were seen or felt on the pelvic wall. She recovered from the operation satisfactorily, and, except for a loose cough, was surprisingly well. Two days after the operation she expectorated a small quantity of sputum stained with blood. On April 26th her temperature began to rise, and on the 29th a small abscess was opened on the posterior aspect of the right buttock, close to the mid-line, evidently produced from a small bedsore that was present over the posterior surface of the lower end of the sacrum. Her temperature then rapidly subsided; her cough became less troublesome, and finally disappeared.

On May 16th, four weeks after the operation, she had no cough at all, and the pleuritic rub formerly heard at both bases had almost disappeared. The secondary deposits in the vagina have not spread. There is no ulceration, but there is a purple nodule still present along the anterior vaginal column. The patient is still in hospital.

Examination of parts removed at operation.—The surface of the uterus is quite smooth, and no adhesions are present; several small black foci of growth can be seen shining through the serous coat, but not involving it. On laying open the uterus posteriorly, its cavity was dilated, measuring nearly 6 inches in length, and pyriform in shape; its upper half was occupied by a dark red growth measuring $2\frac{1}{2}$ inches by 3 inches, and its lower half filled with laminated blood clot which could readily be removed, and was not adherent to the uterine mucosa. The growth had a broad base of attachment, and had penetrated deeply into the muscular wall of the uterus, giving rise to the nodules seen on the surface of the uterus. The wall of the uterus on the lower segment is thinned out, smooth and unaffected by the growth; the tubes and ovaries are also unaffected. Large clots are to be seen in the uterine veins on either side of the cervix.

As only seven cases have been reported of this interesting disease occurring in Guy's Hospital since its nature was first recognised about 20 years ago, it is evident that it is fairly uncommon, and the presence of this last case in the wards stimulated me to collect and write a short account of the previous cases. Although the number of cases is so small, yet they will serve to illustrate some of the interesting points in connection with this disease.

The first literature on the subject appeared in 1892, when Sänger (1) read a paper before the German Gynæcological Society. He considered that the growth had its origin in the decidual cells, and designated it "decidual sarcoma." In 1895 Marchand (2) showed that the growth had its origin in the chorionic villi, and he identified the large protoplasmic masses with the syncitium and the individual cells with those of Langhan's layer, and in 1898 he proposed the term chorio-epithelioma, which has since been generally accepted. Since then the correctness of Marchand's investigations has been proved by many observers.

The growth may occur at any age in the child-bearing period, the age being of less importance than the degree of fertility. Teacher (3) has shown that the incidence of the disease rises rapidly with the degree of fertility, and in 156 cases he showed that it occurred in connection with the first pregnancy in 4·7 per cent., and in connection with the fifth or later pregnancy in 37·8 per cent. In these seven cases the age varied between 27 and 48 years, and the total number of pregnancies was 39, one woman (Case 6) having had only one pregnancy which ended in abortion, although she had been married five years. The most fertile woman (Case 2) had 14 pregnancies, four of them ending in abortion.

In all cases this disease follows, at a greater or smaller interval, pregnancy in some form, either a full time pregnancy, an abortion, a hydatidiform mole, or a tubal gestation, several cases of which have been reported. The interval between the termination of pregnancy and the onset of symptoms varies greatly, but symptoms usually appear within six months, and frequently very much earlier. (4) The longest recorded interval after the pregnancy is $3\frac{3}{4}$ years, but it is very rare for more than twelve months to elapse. In these seven cases it is very difficult to state definitely the time when the symptoms commenced; in Cases 2 and 5 irregular hæmorrhage appears to have followed almost directly on an abortion; in Cases 1 and 3 about four months seem to have elapsed; in

Case 4 a nodule of growth was accidentally found in the vaginal wall a month after the passage of a vesicular mole, without having previously given rise to symptoms; and in the last case, $2\frac{1}{4}$ years appear to have elapsed before the onset of symptoms, but in this case the possibility of an early abortion being the cause of the commencement of the hæmorrhage cannot be denied; if this is not so, it is the only one of the seven in which the disease has followed a normal full time labour; of the other six cases, three were abortions and three vesicular moles, showing how frequently the disease follows the formation of a vesicular mole, a fact which is equally well shown when large numbers of cases are considered.

In Case 6 a large lutein cyst of the left ovary was found at the operation, and this association of the two diseases has frequently been noticed, but the exact connection between the two remains obscure. It is interesting to note that a lutein cyst and a vesicular mole have also frequently been found associated, and as both diseases are rare this association must have some significance.

In Case 4 no evidence of any intra-uterine growth could be discovered, and it was, therefore, evident that the nodule accidentally discovered in the posterior vaginal wall was the primary growth. In nearly all cases the primary tumour is intra-uterine, but it has also been observed in the vagina, the labia, and several times in the Fallopian tubes following tubal gestation. The appearance of these primary tumours outside the uterus is explained in two ways: (a) That they are really metastases from a uterine placenta showing malignant activity, which was completely thrown off; or (b) Detached portions of a normal placenta that have become grafted on to the vagina or labia during its expulsion, and have subsequently assumed the characters of a malignant growth.

The symptoms usually noticed are: vaginal hæmorrhages, anæmia, emaciation, foul vaginal discharge, pain, and pyrexia. Of these, vaginal hæmorrhage is usually the most important and the first to appear, and is generally the cause of the patient's seeking advise. In all of the seven cases vaginal hæmorrhage occurred at some period of the illness, and in five was the main symptom when admitted to hospital, and it had been present for periods varying between two and eight months before admission. Of the two cases that were not admitted for this symptom, Case 4 was in the ward with an empyema, and Case 6 came complaining of swelling of the abdomen, although she had previously had hæmorrhage which had ceased for some months before admission. In all cases the hæmorrhages were more or less persistent, moderate in amount, and in several instances augmented by severe floodings.

Anæmia is another symptom which is almost always present, and is usually noticeable quite early in the disease; there is marked pallor of the whole of the face, the conjunctivæ, lips, and tongue being especially blanched. It is due chiefly to the continuous loss of blood, but is partly also the result of the cachectic condition produced by the presence of the growth. It was a noticeable feature of all the seven cases here reported, and the patients had usually noticed it themselves before admission to the hospital. Associated with the anæmia is a marked and progressive loss of weight which the patients often notice themselves quite early in the history of the illness. This frequently goes on to wasting or even great emaciation if the progress of the disease is not checked. Wasting was very marked in five of these seven cases. In Case 5 there is no record of any wasting, but the growth when removed was not in an advanced stage. Unfortunately, since leaving hospital nothing more has has been heard of her. In the last case reported there was no obvious emaciation, but on questioning the patient she thought she had lost weight considerably since the onset of her symptoms, but she had no records of her actual weight.

A vaginal discharge, apart from the loss of blood, is another symptom that is often present, and its onset is noticed at a variable period after the commencement of the hæmorrhage, or occasionally it may be the first symptom noticed, although it was only noticed in two of these cases, and on both occasions commenced two or three months after the hæmorrhage. At first it is thin, watery, and not offensive in any way, but it generally rapidly becomes very foul, thick, and brown, greenish brown, or yellowish in colour owing to the rapid way in which the growth softens and becomes necrosed; in many cases septic infection makes the discharge still more offensive. At the same time there is often a moderate amount of pyrexia ranging to 102° F. or more when the disease had advanced thus far, but the early course of the disease is quite apyrexial, and may sometimes remain so till the end. In these seven cases a moderate degree of pyrexia was present in three of them, all of which ended fatally; the other four remained practically free from pyrexia throughout the illness.

Pain is not often very noticeable until the disease becomes very advanced, but is often present intermittently at an earlier stage. The character and position of the pain vary considerably, but it is often felt as a dull boring pain in the lower part of the abdomen, going through to the back and becoming more severe and constant as the disease progresses, as was shown in Cases 2 and 6 of this series. There may be severe pain in the chest associated with secondary deposits in the pleura.

By the time the patient seeks advice one may expect to find signs of enlargement of the uterus in all cases in which the primary growth is situated in that organ. Often the enlarged uterus can readily be felt and even seen through the abdominal wall as a pyriform-shaped tumour rising out of the pelvis in the mid-line, and it may reach to the level of the umbilicus, but rarely is larger than this. On bimanual examination the uterus is nearly always shown to be enlarged, soft, and occasionally bosses can be felt on its surface indicating extension of the growth through the uterine wall. The cervix is usually fairly movable, and the external os patulous, sometimes enabling one to admit the finger into the uterine cavity without previous dilatation, as in Case 1. In the six cases where the primary growth was intra-uterine, that organ was definitely enlarged on bimanual examination, the sound passing from $3\frac{1}{2}$ to $4\frac{1}{2}$ inches. In Cases 3, 6, and 7 the enlarged uterus could easily be felt through the abdominal wall.

The only chance of success in the treatment of chorion epithelioma is by removal of uterus and appendages as early as possible. Signs of metastases elsewhere should not deter one from operating, as cases have been reported on more than one occasion where secondary deposits have disappeared after removal of the primary growth. In this important respect chorion epithelioma differs from other malignant growths.

The treatment and its result of these seven cases was as follows:—

Case	Operation.	Result.	Mode of Death.
1	Vaginal hysterectomy	Death 6th day	Paralytic distension of bowel
2	Vaginal hysterectomy	Death 3 months	Metastases in lungs
3	No operation	Death 13 days after admission	Metastases in lungs
4	Four operations for removal of growth from vaginal walls	Death 9 months after first operation	Metastases in lungs and exhaustion
5	Vaginal hysterectomy	Left hospital a month later apparently well. No further record	—
6	Abdominal hysterectomy and double Ovariotomy	Death 21 days	Metastases in lungs, liver and thyroid gland. Exhaustion
7	Abdominal panhysterectomy and partial excision of vaginal metastases	Recovery. Left hospital in 6 weeks, convalescent	—

Of these seven cases, then, five died within three months of operation, four of them with signs of metastases in the lungs, and the fifth did not recover from the operation; the remaining two left the hospital convalescent, one of them three years ago, and her after-history cannot be traced. The last case is particularly interesting, as, when she was admitted into the hospital, she had definite signs of metastases in the chest, and breaking down metastases could be seen in the vagina. Although these were only partially removed at the operation, there is at the present time scarcely any trace of them left, and the signs in the chest have completely cleared up. Although it is very early to speak yet, it seems that this patient may be a further illustration of the way in which secondary deposits of chorio-epithelioma may disappear after removal of the primary growth and the patient remain well.

In this disease secondary deposits in other viscera often appear early, and may sometimes be the cause of the primary symptoms, the commonest situations being the lungs and vaginal walls, the growth reaching the latter situation by way of the venous plexuses, which are very numerous here. Other organs in which secondary deposits have been noted at different times in their order of frequency are: the vulva, liver, the brain, ovaries, and tubes, muscles such as the diaphragm and psoas, kidneys, spleen, and ribs.

In this series metastases were found in the lungs in five cases (in every case in which any deposits were present), vagina twice, ovary twice, and once in the Fallopian tubes, liver, thyroid gland, lumbar glands, bronchial and mediastinal glands, vulva, and right psoas muscle.

Direct extension of the original nodule usually takes place into the base of the broad ligament on either side, via the venous plexuses, to the base of the bladder and round the urethra, and also down the vaginal walls, usually the anterior, the deposits appearing beneath the mucous membrane, and finally ulcerating through it.

The original tumour arising from the fœtal chorion may grow into the uterine wall in one or both of two directions: it commonly spreads through the endometrium bulging into the cavity of the uterus, and also invades the muscular wall, so that it often breaks through the whole uterine wall, appearing as nodules beneath the peritoneal surface, and later on, even this membrane may be eroded. Sometimes the growth is confined to the muscular wall of the uterus, and does not appear in the uterine cavity at all, as was the case in the sixth patient in this series. On section, it is soft and friable, of a dark reddish-brown colour due to hæmorrhages into its substances, and there are often large areas of necrosis. Microscopically, three varieties of cellular formation can usually be differentiated: (1) Large multinucleated masses of protoplasm without distinct cell formation; these are derived from the chorionic syncitial masses. (2) Small closely-packed cells with large nuclei and no intercellular structure; these are derivatives of Langhan's cells. (3) Very large cells may be found containing either one or many nuclei, and are probably derived from both syncitium and Langhan's cells.

There is a great tendency for these cell masses to invade the venous sinuses and to encroach on the interior of the vessel walls. This is especially seen at the advancing margin of the growth; large numbers of blood corpuscles and masses of blood clot are seen throughout the section.

In conclusion, I must thank Mr. Targett for allowing me to report the cases that have been under his care.

REFERENCES.

1. Sänger, Archiv. f. Gyn., 1893, vol. xliv., p. 185, *et seq.*
2. Marchand, Monatschr. f. Geb. u. Gyn., 1895,
3. Teacher, Trans. Obstet. Soc. of London, vol. xlv., Journ. of Obstet. and Gyn. Brit. Emp., July and August, 1903.
4. System of Gynæc. By Allbutt, Playfair, and Eden. Chorion Epithelioma Malignum. T. W. Eden and J. H. Teacher, p. 406.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

Appointments.

The following appointments and re-appointments have een made by the Treasurer upon the recommendation of a Staff Meeting:—

MEDICAL SCHOOL.

Medical Registrar.—Mr. N. Mutch.

Surgical Registrar.—Mr. H. Gardiner.

Resident Surgical Officer.—Mr. F. D. Saner.

Demonstrator of Operative Surgery.—Mr. J. G. Saner.

Demonstrators of Anatomy.—Messrs. T. B. Layton and G. T. Mullally.

Demonstrators of Physiology.—Messrs. E. L. Kennaway, J. H. Ryffel and E. B. Poulton.

Demonstrator of Biology.—Mr. T. Reed.

Demonstrator of Physics.—Mr. H. H. Abram.

Clinical Analyst to the Wards.—Mr. J. H. Ryffel.

Ophthalmic Assistants.—Mr. Harry Lee and Mr. G. Maxted.

Anæsthetists.—Messrs. Shipway, Page, Mullally and Chapple.

Anæsthetist to Bright Ward.—Mr. Bromley.

Senior Assistant Bacteriologist.—Dr. G. W. Goodhart.

Junior Assistant Bacteriologist.—Mr. F. Cook.

DENTAL SCHOOL.

Demonstrators of Practical Dentistry with Charge of Revision Classes.—Messrs. H. C. Malleson and F. N. Doubleday.

Demonstrators of Practical Dentistry with Charge of Probationary Classes.—Messrs. W. S. Stranack and W. S. Wotton.

Demonstrators of Practical Dentistry with Charge of Extraction Classes.—Mr. W. A. Hodgson.

Demonstrators of Prosthetic Dentistry.—Messrs. E. H. Tomes and H. D. Shore.

Demonstrators of Dental Microscopy.—Messrs. E. B. Dowsett and E. L. Kennaway.

Curator of Dental Museum.—Mr. E. B. Dowsett.

Naval and Military.

Major H. A. Smith, I.M.S., Civil Surgeon at Agra, has been appointed Civil Surgeon at Simla East.

Captain G. H. Rees, R.A.M.C., on arrival home from Alexandria has been posted for duty in Ireland.

Territorial Force.

4th Southern General Hospital, R.A.M.C.—Major Henry W. Webber to be Lieut.-Colonel, dated January 27th, 1912.

Notts and Derby Mounted Brigade Field Ambulance, R.A.M.C.—Alexander M. Webber to be Lieutenant, dated April 27th, 1912.

2nd Western General Hospital, R.A.M.C.—Lieut.-Colonel G. A. Wright, on completion of his period of service in command, is retired, dated June 22nd, 1912.

Civil.

C. H. Bradnam, L.D.S., has been appointed Dental Surgeon to the Bexhill-on-Sea Dental Clinic.

Hildred B. Carlill, M.A., M.D., M.R.C.P., has been elected Medical Registrar and Tutor at the Westminster Hospital.

S. W. Daw, M.B., B.S., F.R.C.S., has been appointed Surgical Registrar at the General Infirmary, Leeds, and Surgical Tutor, Leeds University.

C. E. Gaitskell, L.R.C.P., M.R.C.S., has been appointed Medical Officer for the Lympstone District by the St. Thomas' (Exeter) Board of Guardians.

W. E. Robinson, M.D., B.Ch. Oxon., has been appointed Visiting Anæsthetist to the Royal Waterloo Hospital for Children and Women.

HONOURS—BIRTHDAY.

Inspector General Belgrave Ninnis, R.N. (*Retired*), to be C.V.O.

Swimming Entertainment.

THE Annual Entertainment of the Swimming Club was held at the Southwark Baths on Thursday, June 27th, and well maintained the success that these entertainments have been in the past. The performances in the various events reached a high level, and a large enthusiastic audience was present. Mr. Wingent had again kindly provided a most artistic cover to the programme.

RESULTS.

Sixty-six Yards Scratch.—Prizes presented by Sir Alfred Fripp and M. Hopson, Esq. J. York Moore, 1; J. H. Rhodes, 2; C. G. Coombes, 3. Time, 45 secs.

220 Yards Scratch.—Prize presented by Mrs. Eyre. A. Eiselman, 1: E. F. Llarena, 2; E. S. Phillips, 3. Time, 3 min. 11⅕ secs.

Nurses' Race 66 Yards Handicap.—Prize presented by GUY'S HOSPITAL GAZETTE. Nurse Yewdall (27 secs.), 1; Nurse Tyler-Cove (29 secs.), 2; Nurse Macdonald, (scratch), 3.

Neat Diving.—Prizes presented by Messrs. Turner and Rowlands. F. B. Stradling, 1; E. G. Schlesinger, 2; A. J. Barber, 3.

Cork Competition.—Prize presented by T. B. Layton, Esq. Won by F. B. Stradling.

66 Yards Handicap.—Prize presented by Mrs. Price, J. T. Forbes (9 secs.), 1; W. J. Smythe (12 secs.), 2; A. F. Guinness (9 secs,), 3. Time, 53⅘ secs.

66 Yards Breast Stroke.—Prize presented by J. Lewin Payne, Esq. A. F. Guinness, 1; W. J. Smythe, 2; H. J. James, 3. Time, 57⅗ secs.

Balloon Race.—Prize presented by C. H. Fagge, Esq. Won by A. J. Barber.

Team Race: Medicals v. Dentals.—Prizes presented by W. M. Mollison, Esq. Dentals (F. B. Stradling, C. Glover, A. D. Buck, E. F. Llarena) 1; Medicals (J. York Moore, C. G. Coombes, A. Wills, E. S. Phillips), 2. Time, 1 min. 24⅗ secs.

One of the features of the evening was the challenge plunge, which was announced to take place between Nurse Macdonald and Mr. Pryce-Davies, who had previously won the men's plunging competition. Unfortunately, Mr. Pryce-Davies was unable to be present, and his place was very pluckily taken by Mr. Boutwood; Mr. Boutwood plunged 51ft. 11in., and Nurse Macdonald 49ft. 6in. The prize, which was presented by Master Philip Steward, went to Mr. Pryce-Davies, and a second prize was awarded to Nurse Macdonald.

The entertainment ended with a polo match, Guy's *v.* Mr. Eccles' team, in which Guy's were victorious.

A most entertaining display of fancy diving was given during the evening by Messrs. Cane, Ede, Errington, Hughes, Legge, and Pott, members of the Highgate Life-Buoys, and the thanks of the club is due to these gentlemen for so kindly, on this and other occasions, giving their services.

At the end of the evening the prizes were kindly distributed by Mrs. Philip Turner, and Sir Alfred Fripp expressed on behalf of the club its thanks to her and to those gentlemen and ladies who so kindly presented prizes and officiated in various capacities.

The energetic Secretaries, Messrs. H. N. Eccles and A. Wills, are most heartily to be congratulated upon the success of the evening, and Mr. Eccles' long continued exertions at these annual entertainments are recompensed by their rapidly increasing popularity.

Reviews, etc.

Anæsthetics in Dental Surgery. By Frank Coleman, M.R.C.S., L.R.C.P., L.D.S., and Harvey Hilliard, M.R.C.S., L.R.C.P. (H. K. Lewis). Price, 7s. net.

This book supplies the dental student with just what he wants in the way of instruction in anæsthetics. The collaboration of a dental surgeon and an anæsthetist in the writing of the book is a happy one, since no operations demand a more complete understanding between the operator and the anæthetist than those of dentistry. The sections on nitrous oxide and ethyl chloride might well be read by medical students as well as dental, since, unfortunately, it is notorious that the average medical practitioner is much less skilled in the administration of nitrous oxide than is the average dentist.

The important subject of local analgesia is adequately treated in the last chapter.

Diseases sf the Eye. J. Herbert Parsons, F.R.C.S., etc. Second Edition. (J. & A. Churchill). Price 12s. 6d. net.

The second edition of this manual fully maintains the soundness of the previous edition. The diseases, as before, are based on their pathology, and so are ably dealt with. Elementary optics are fully gone into at the beginning, thus enabling the student to procure good knowledge of this important subject.

We are rather surprised that the old colour vision test retains its place, but no doubt the author has his reasons. We can recommend this book to all students and ophthalmic practitioners.

Cricket.

GUY'S v. BROMLEY.

Played at Bromley on June 22nd. Guy's batted first, and before the luncheon interval had scored 200 for five wickets. After lunch the last five wickets only added 49 runs. Bromley scored 306, and thus won by 57 runs.

GUY'S.

A. B. Bond, c & b Neame	26
K. J. T. Keer, c Gregory, b Neame	39
A. C. Hancock, b Batchelor	33
C. Vincent-Brown, lbw, b Batchelor	45
A. F. Rook, c Batchelor, b Tucker	30
F. C. Hunôt, c Neame, b Batchelor	28
B. F. Sampson, c Hamilton, b Batchelor	1
G. W. M. Andrew, c Hamilton, b Tucker	0
H. C. Rook, b Tucker	12
A. H. Harkness, lbw, b Batchelor	2
G. Ferguson, not out	0
Extras	33
Total	249

BROMLEY.

J. Hamilton, b Hunôt	6
E. Field, c Hancock, b Sampson	130
C. L. Gregory, b Harkness	8
H. Thompson, b Andrew	50
B. H. Batchelor, b Sampson	13
B. Tucker, lbw, b Andrew	33
A. Eamshaw, c Harkness, b Rook	41
B. Lincoln, b Sampson	1
A. B. Neame, c & b Sampson	6
C. Freeman, not out	1
S. Sharp, c & b Andrew	0
Extras	17
Total	306

GUY'S v. THOMAS'S.

SEMI-FINAL FOR THE INTER-HOSPITAL CUP.

Played at Honor Oak Park on Wednesday, June 26. Guy's batted first, and scored 182. Bond and Keer played very good cricket. Bond had very bad luck in getting run out. Thomas's could not scrape together more than 112, and Guy's won by 70 runs. Biddle kept a good length throughout the innings, capturing six wickets for 36 runs. We now play Bart.'s or Middlesex in the Final.

GUY'S.

A. B. Bond, run out	41
K. J. T. Keer, c Morcom, b Cranstown	52
A. C. Hancock, c Doorley, b Cranstown	8
R. Montgomery, c Whorlow, b Morcom	24
C. Vincent-Brown, c Morcom, b Whorlow	27
A. F. Rook, c Cranstown, b Morcom	11
F. C. Hunôt, c Sparks, b Morcom	2
B. F. Sampson, c Morcom, b Cranstown	0
G. W. M. Andrew, c Morcom, b Whorlow	6
J. Biddle, c Doorley, b Morcom	3
A. H. Harkness, not out	1
Extras	10
Total	182

THOMAS'S.

C. W. Sparks, b Biddle	25
W. B. Laird, c Rook, b Harkness	2
J. L. Birly, b Biddle	8
D. M. Gibson, b Harkness	0
C. G. Whorlow, b Harkness	1
A. F. Morcom, c Rook, b Harkness	20
G. Cranstown, b Biddle	2
H. Walker, c Bond, b Biddle	2
A. R. C. Doorley, not out	21
L. W. Shelley, b Biddle	0
H. J. B. Fry, b Biddle	11
Extras	20
Total	112

GUY'S v. SURREY CLUB AND GROUND.

Played at the Oval on Thursday, June 27th. Guy's were beaten by 82 runs. Sampson batted well for his 37; he also bowled well, taking four wickets for 22.

GUY'S.

C. Vincent-Brown, b Freeman	0
K. J. T. Keer, b Freeman	17
A. B. Bond, b Freeman	9
F. C. Hunôt, b Freeman	3
B. F. Sampson, b Blacklidge	37
F. J. Biddle, b Freeman	0
A. C. Hancock, c Sullivan, b Blacklidge	3
G. W. M. Andrew, run out	18
A. H. Harkness, not out	17
B. S. Stewart, st Sullivan, b Freeman	7
C. Coombes, st Sullivan, b Freeman	0
Extras	11
Total	122

SURREY CLUB AND GROUND.

T. C. Stafford, b Hunôt	36
P. H. Slater, b Biddle	16
F. S. Gillespie, c Bond, b Andrew	43
C. Mason, run out	9
— Blacklidge, b Sampson	30
R. C. Grellet, b Andrew	1
Lt.-Col. H. E. Lewis, c Stewart, b Sampson	44
A. M. Latham, b Biddle	10
Abel (T.), lbw, b Sampson	0
— Sullivan, not out	1
— Freeman, lbw, b Sampson	1
Extras	13
Total	204

GUY'S v. FOREST HILL.

Played at Forest Hill on Monday, July 1st. Guy's batted first, and scored 290 for seven wickets. Brown and Andrew both batted well. When Forest Hill had scored 184 for five wickets, rain stopped play.

GUY'S.

L. Green, lbw, b Matthews	3
A. C. Hancock, b Hilder	20
J. A. D. Skinner, b Coles	34
E. H. Denby, c Matthews, b Coles	20
R. S. Kennedy, b Hilder	18
C. Vincent-Brown, c Hilder, b Owens	67
G. W. M. Andrew, not out	57
A. H. Harkness, c Mace, b Matthews	14
F. J. Biddle, not out	14
Extras	43
Total (for 7 wickets)	290

T. A. V. Wood and C. Cole did not bat.

FOREST HILL.

H. S. Hilder, c Harkness, b Kennedy	23
S. J. Owens, b Biddle	2
C. L. Coles, b Kennedy	23
N. Matthews, not out	55
S. A. Hunter, c Harkness, b Andrew	28
C. Moore, *run out*	1
J. P. White, not out	33
Extras	19
Total (for 5 wickets)	184

G. Mace, S. Wright, L. Jackson, and C. E. E. Lee did not bat.

Golf.

A Golf Match was played on the Links of the Northwood Club on Wednesday, June 19th, by sides representing the Physicians and the Surgeons. Singles and foursomes were played; the Physicians led by one match in the former, but the Surgeons, winning two matches to one in the foursomes, halved the match. Thanks are due to the Northwood Club for allowing the use of their course, and to Dr. Fawcett for very kindly making all arrangements for a most enjoyable day. The following are the details:—

PHYSICIANS.		SURGEONS.	
Dr. J. Fawcett	0	Mr. F. J. Steward	1
Dr. H. C. Cameron	1	Mr. W. M. Mollison	0
Dr. H. C. Cameron	1	Mr. L. Bromley	0
Dr. F. E. Shipway	0	Mr. R. Davies-Colley	1
Mr. H. Lee	0	Mr. F. D. Saner	0
Mr. J. H. Ryffel	1	Mr. V. Townrow	0
	3		2
Dr. Fawcett & Mr. Lee	1	Mr. Steward & Mr. Saner	0
Dr. Cameron & Mr. Hunt	0	Mr. Mollison & Mr. Bromley	1
Dr. Shipway & Mr. Ryffel	0	Mr. Davies-Colley & Mr. Townrow	1
	1		2

Births.

DAVIES–COLLEY.—On May 27th, at 24, St. Thomas's Street, to Mr. and Mrs. R. Davies-Colley, a daughter.

Marriage.

SHEAF–SMITH.—On 19th June, 1912, at the Churc of the Holy Rood, Stubbington, Hants, by the Rev. G. B. Leggatt, M.A., uncle of the bride, and Vicar of Shipley, Yorks., assisted by the Rev. R. E. Leigh, M.A., Vicar of Crofton, Eric Watson Sheaf, M.A., M.C., Cantab., of Guildford, only son of the late Ernest Sheaf, F.R.C.S.E., of Toowoomba, Queensland, to Laura Jeannette Daphne Smith, third daughter of S. Denham Smith, late of Swanage.

Death.

PARAMORE.—On Saturday, June 22nd, at his residence, 2, Gordon Square, W.C., suddenly, Richard Paramore, M.D., in his 64th year.

Eds.—E. G. S. & A. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 628.] JULY 20, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	285–287
Books recently added to the Wills Library...	287
Guy's Hospital Medical School. Distribution of Prizes	288–292
Change of Address	292
Papilloedema and Optic Neuritis. Clinical Lecture by Mr. A. W. Ormond	293–296
Appointments	296
With Professor Kitasato in Japan. By Hildred B. Carlill, M.D.	297–299
London Bridge and the Borough in the Eighteenth Century (*continued*)	299–301
A Case from the Genito-Urinary Department	301
A Letter of Lilian	302
Pass List	302
Correspondence	303
Papers by Guy's Men	303–304
Notices	304
Specialities	304

Passim.

PRIZE Day, which is fully reported elsewhere in our columns, was peculiarly successful from every point of view. More delightful weather could not have been desired, and the Park has rarely been so crowded with visitors, all obviously thoroughly enjoying the function. A steady stream of visitors, shepherded by wearers of marvellously variegated and multicoloured robes, passed through the wards to the great delight of the patients, whilst the Museum, Operating Theatres and Out-Patient Department, were as popular attractions as ever. The Hospital looked its very best, even the historic Colonnade having been drastically swept and garnished for the occasion, and the whole event passed off leaving nothing to regret, and much cause for congratulation.

AT a meeting of the Court of Governors important appointments have been made on the Surgical Staff. Mr. Charters Symonds becomes a member of the Consulting Staff on his retirement from active duty at the Hospital. Mr. F. J. Steward fills the vacancy thus created on the full Surgical Staff, and Mr. R. Davies-Colley joins the Staff as Fifth Assistant Surgeon. Mr. Davies-Colley, who now becomes Assistant Surgeon to the Hospital, qualified M.B., B.C. at Cambridge in 1906. In 1908 he took both the M.C. degree at Cambridge and the F.R.C.S. diploma. He was House Physician to Dr. Pitt in 1907, and from 1907 to 1911 was Obstetric Registrar and Tutor. In 1911 he was appointed Demonstrator of Anatomy. Mr. Davies-Colley is well known to all Guy's men of recent years, and his appointment to the Surgical Staff will be received with genuine delight by all who in any way have come in contact with him. We offer him our heartiest congratulations, and have no doubt that his career as a surgeon of Guy's will be in the highest degree successful.

THE retirement of Mr. Symonds from the active Surgical Staff is an event which will produce a sad gap in the associations and routine work of the Hospital. It is difficult, indeed, to imagine the surgical life of the Hospital being carried on without the genial presence, the brilliant teaching, and the expert skill of our Senior Surgeon. Mr. Symonds will make his last and farewell round of his wards on Monday afternoon, July 22nd, and we are sure that all who know him will be anxious to take this opportunity for a final "round with Charters." In the evening of that day a number of his former House-Surgeons, dressers, and clerks are entertaining Mr. Symonds at dinner, thus endeavouring to show to some small extent their lasting regard and affection for their former chief.

AMONGST the many changes in the Staff of the Hospital which were formally announced in the Dean's Report none called forth more genuine regret than the resignation of Dr. Eason from the post of Dean of the Medical and

Dental Schools. Dr. Eason has laboured long and strenuously for the cause of the Schools over which he has been the head, and their continued and increasing success is in no small measure due to his indefatigable energy, patience, and resourcefulness. The office of Dean is no sinecure, and is open to criticism at every turn, but Dr. Eason has carried out his important functions with distinction and has every claim upon the sincerest gratitude of the Hospital and School. It is indeed satisfactory to realise that although he is no longer Dean, the School will still be able to benefit by his expert knowledge of its work. To his successor, Dr. Cameron, we extend the heartiest welcome, and feel confident that those abilities which have made him so appreciated in other directions will enable him to maintain and carry on at the highest level the traditions of his new position.

WE had very little hope that our recent stringent criticism of the intimidative policy of the B.M.A. would call forth aught save abuse, and, indeed, we have been favoured with several letters of protest of the kind that we anticipated. On the other hand, however, we note with pleasure, tinged, we fear, with surprise, the strong support which our contemporary, *The Hospital* affords us in our attack on what it well describes as a "startling innovation," namely, "the notorious recent policy of trying to force syndicalist methods upon the profession." We further learn that there is little indication that the profession as a whole intends to adopt these would-be coercive measures, and we venture to hope that the leaders of the B.M.A. have at length so obviously overstepped the limits of sane policy, to say nothing of professional dignity and toleration, that the rank and file may pause and consider 'ere they follow them still further in their headlong course.

THE old proverb about the mental condition of those whom the gods wish to destroy would seem to apply with tragic force to the general attitude of the profession at present in regard to the Insurance Act. The unreasonableness of the Association with its ultimatum of cardinal points, its political denunciations, and its aggressive trades-unionism is rapidly producing upon the mind of the outside public an increasing conviction that if such is the internal politics of the profession, the sooner its members become absorbed wholely under State control the better it will be for the national well-being. Into the desirability or not of such a change it is irrelevant here to enter; the fact remains that the doctors are obtruding themthemselves upon the public eye in a manner which accentuates their shortcomings and will, if continued, rapidly produce possibly disastrous results. We have returned once again to this subject, because there appears to be some signs of growing clearness of vision amongst the profession, and though we fear the officials of the B.M.A. are almost beyond hope, yet there may still remain some individuals who can be induced to stand out against its suicidal policy, and to them we direct our reiterations.

ON Tuesday and Wednesday of this week the nursing and resident medical staff of the hospital, and others, were entertained by Sir Everard and Lady Hambro in their beautiful garden at Hayes Place. On each day the weather was perfect. The party went down in a special train from London Bridge. At Hayes the more energetic, undeterred by the great heat, played tennis and rode in swing-boats and on the see-saw; many bold spirits sought to learn their fates in the tent of the palmist; but most of us were content to sit in the shade of the great cedars listening to the band, or to explore the grounds, or to inspect the art treasures of the house. At the end of a most enjoyable afternoon cheers, with musical honours, for Sir Everard and Lady Hambro, expressed in some measure the company's appreciation of their very great kindness in providing this extremely pleasant change from the routine of hospital work.

THE adjourned final meeting of the Physical Society for the past session took place on Monday evening, July 15th. Mr. Symonds was in the chair and announced his adjudication of the Treasurer's Prize for an essay on "The

Symptoms, Prognosis, and Late Results of Fractured Base of the Skull." He stated that all the three essays sent in had been of very high standard, and he had had some difficulty in allotting the prize. The essay of Mr. A. E. J. Smith, however, came first in his opinion, and Mr. Smith subsequently read to the meeting extracts from his comprehensive essay, extracts which showed extensive and valuable research into a most interesting problem.

THE following extract from the lay Press is indicative of how we appear to some enlightened individuals:—

"NEVER GIVE IN.—Take your wife out of the hospital at once. The doctors are always trying on some new dodge. Now, because his wife passes shreds with the motions the hospital doctors want to open her inside, cut open the appendix, wash out the bowel through that, and leave a hole in her belly for a year. What a pleasant prospect! I should tell the doctor who proposed such a thing to me, 'I would see him hung first.' Put the wife on OMEGA diet for a month, then on the PUER diet for a month, and she should get well without operation. Have hot flannels over the bowels twice a day, then rub in warm olive oil. I write so strongly because I know the present race of doctors are ruining the public health, and no one dare talk straight to them as I do."

Books recently added to the Wills Library.

BY PURCHASE.

Beattie and Dickson's Text-book of General Pathology, 1910.

Beattie and Dickson's Text-book of Special Pathology, 1910.

Choyce's System of Surgery, vol. i., 1912.

Dixon's Manual of Pharmacology, 3rd edit., 1912.

*Ergebnisse der inneren Medizin und Kinderheilkunde, vol. 9, 1912.

Fortescue-Brickdale's Practical Guide to the Newer Remedies, 1910.

French's Index of Differential Diagnosis of Main Symptoms, 1912.

Greig's Epidemic Dropsy in Calcutta (Scientific Memoirs . . of the Government of India, No. 49), 1912.

Lewis's Clinical Disorders of the Heart Beat, 1912.

Luke and Ross's Anæsthesia in Dental Surgery, 3rd edit., 1910.

Morris and McMurrich's Human Anatomy, 4th edit., 1907.

*Musser and Kelly's Handbook of Practical Treatment, 3 vols., 1911—12.

Patton's Preliminary Report on an investigation into the Ætiology of Oriental Sore in Cambay (Scientific Memoirs . . of the Government of India, No. 50), 1912.

Pollock and Harrison's Gonococcal Infections, 1912.

Riviere and Morland's Tuberculin Treatment, 1912.

Ross's Malarial Fever, 9th edit., 1902.

Scudder's Treatment of Fractures, 7th edit., 1911.

*Senator and Litten's Diseases of the Kidneys and of the Spleen; Hæmorrhagic Diseases, 1907.

Still's Common Disorders and Diseases of Childhood, 2nd edit., 1912.

* For Davies-Colley Memorial.

PRESENTED.

Atlay's Sir Henry Wentworth Acland, Bart., K.C.B., F.R.S., Regius Professor of Medicine in the University of Oxford. A Memoir, 1903. By Mr. W. Wale.

British Pharmaceutical Codex, 1911. By the Council of the Pharmaceutical Society.

Craig's Psychological Medicine, 2nd edit., 3 copies. By Dr. Craig.

Hertz's La Constipation et les Troubles Intestinaux, 1912. By Dr. Hertz.

Journal of Physiology, as published. By Dr. Hertz.

Lucas's Bradshaw Lecture on some points in Heredity, 1912. By Mr. Lucas.

Royal College of Physicians' Nomenclature of Diseases, 4th edit., 1906. By Mr. W. Wale.

Shenton's Disease in Bone, and its Detection by the X-rays, 1911. By Dr. Shenton.

Stohr's La Maladie du sommeil au Katanga, 1912. By Dr. Stohr.

Sutherland's Treatment of Disease in Children, 1907. By Mr. W. Wale.

Thompson's Handbook of Patent Law of all Countries, 15th edit., 1912. By the Publisher.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette." Guy's Hospital, London, S.E.*

Guy's Hospital Medical School.

Distribution of Prizes.

THE Distribution of Prizes took place on the afternoon of July 11th, the Marquess of Salisbury handing the awards to the medallists and prizemen.

The proceedings took place in the New School Buildings. Viscount Goschen, the Treasurer, occupied the Chair, and the company included the Governors of the Hospital and the members of the Consulting Medical and Surgical Staff, the Mayors of Southwark and Bermondsey, Sir W. H. Dunn, Mr. Alderman and Sheriff Hanson, Sir John Tyler, and the Masters of the Scriveners' Company, the Pewterers' Company, and the Breivers' Company.

The DEAN read the annual report of the Medical and Dental Schools :—

THE DEAN'S REPORT.

The School year 1911—12 has been in all respects very satisfactory, though the entry of Students last October was not up to the general average. This diminution in the entry of Students was not, however, peculiar to Guy's, which only suffered in proportion to all the medical schools in the United Kingdom.

In this connection it may be of interest to note that in the year 1911 the number of Medical Students registered at the office of the General Medical Council was only 1,232 as compared with 2,405, or nearly double that number, in 1891. The figures for 1911 were the lowest recorded since 1873, nearly 40 years ago, even though the population of the United Kingdom has increased in the same period from about 32 millions to 46 millions.

This is not the occasion on which to discuss the various factors bearing upon these conditions, but it is the general experience of those connected with medical schools that for several years past, at any rate, the widespread uncertainty as to the prospects of the medical profession in the near future has had considerable influence in deterring parents from putting their sons into the practice of medicine. It is to be hoped that when the outlook is more settled there may again be an increase in the entry of medical students, not less in the interests of the country generally, and particularly of the poorer members of the community, than to the advantage of those who feel themselves attracted to a career of unique interest and usefulness.

The School has to congratulate the following Students upon honours obtained by them at various examinations during the year: Dr. W. H. Miller upon obtaining the University Gold Medal in Midwifery and Diseases of Women at the Examination for the Degree of Doctor of Medicine at the University of London; Mr. E. G. Schlesinger on obtaining Honours in Medicine at the M.B., B.S. Examination of the University of London; and Messrs. Debenham and Knott on being distinguished in Inorganic and Organic Chemistry respectively.

Changes on the Hospital and School Staff have been numerous. By the death of Sir Samuel Wilks and of Dr. Pavy the School has been deprived of two great teachers of world-wide reputation, and of an eminence in their profession almost without parallel in the present day. Their researches and discoveries maintained the reputation of a School already rich in famous men.

It is with much regret also that the School has to announce that during this month Mr. Charters Symonds will retire under the age limit from his post as Senior Surgeon to the Hospital. For very many years Mr. Symonds has given the most whole-hearted service both to the Hospital and the School, and has made a sound reputation both as a surgeon and as a teacher. The gift of clinical teaching in surgery is so rare that the retirement of Mr. Symonds will be very deeply felt both by the Students and by his colleagues on the School Staff.

To fill the vacancy thus caused, Mr. Steward, Senior Assistant Surgeon, has been promoted to the Full Staff, and Mr. R. Davies-Colley has been appointed an Assistant Surgeon.

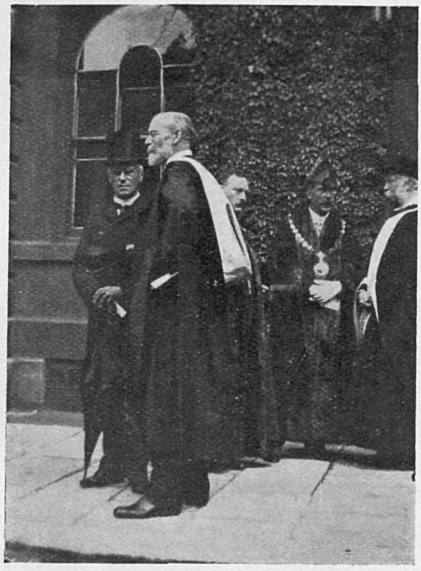
In pursuance of the policy adopted by the Hospital and School with reference to the development of Specialisms in Surgery and Medicine, several new appointments have been made during the course of the year.

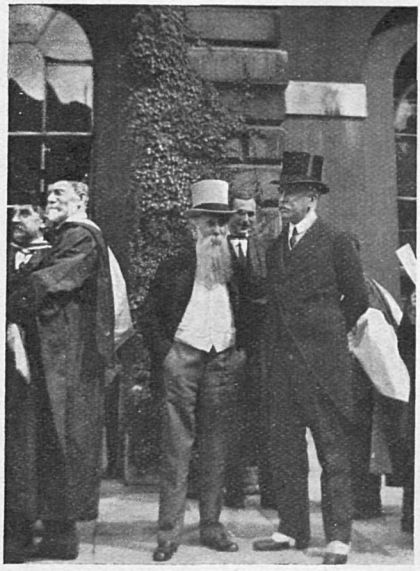
On his promotion to the Full Staff, Mr. Steward will resign his post as Surgeon-in-Charge of the Throat Department, and Mr. T. B. Layton has been recommended for appointment to the vacancy thus created. In future, Mr. Mollison and Mr. Layton will no longer be Surgeons-in-Charge of the Ear and Throat Department respectively, but will both hold the title of Surgeon-in-Charge of the Throat and Ear Department, and will be responsible for the treatment of both classes of disease.

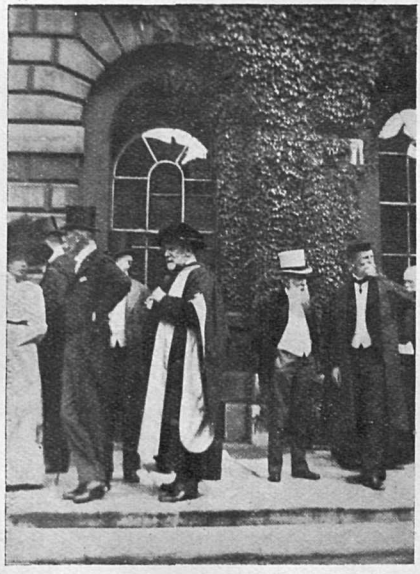
To fill the vacancy created by the transference of Mr. Davies-Colley from the Anatomical Department, Mr. G. T. Mullally has been appointed Demonstrator of Anatomy, while Mr. H. Gardiner has been transferred from the Physiological Department to be Surgical Registrar, and Mr. N. Mutch has been appointed Medical Registrar.

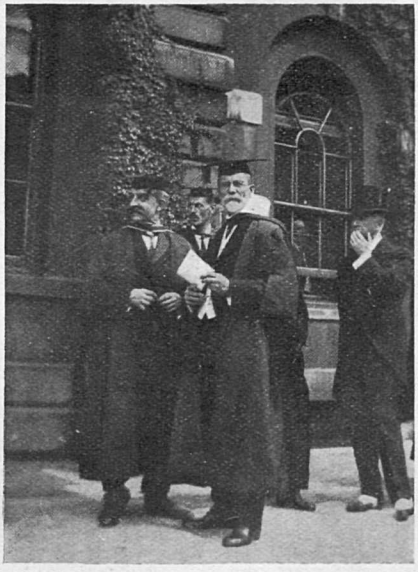
Mr. F. D. Saner takes the place of Mr. Trethowan as Resident Surgical Officer, Mr. Trethowan having proceeded abroad to qualify for the post of Orthopædic Surgeon.

Mr. E. P. Poulton has been appointed Demonstrator of Physiology to fill the vacancy caused by the transference of Mr. Gardiner, and Mr. G. Maxted has been appointed an Ophthalmic Registrar. Mr. Abram has become Demonstrator of Physics, and Mr. H. Rogerson a Demonstrator of Chemistry.









At the Prize Day, 1912.

In the Dental School Mr. Hopson has been appointed Lecturer on Dental Anatomy in succession to Mr. Maggs, whose resignation was announced last year, and Mr. F. Pearce has been appointed Demonstrator of Dental Metallurgy to fill the vacancy caused by Mr. Hopson's promotion. Mr. F. B. Bull has become Operating Demonstrator of Practical Dentistry, and Messrs. Stranack, Wootton, Hodgson, and Shore have been appointed Demonstrators of Practical Dentistry.

Finally, on the administrative side, Dr. H. C. Cameron has been appointed Dean of the Medical and Dental Schools as from the first of October next.

The School has to congratulate Sir James Goodhart, Consulting Physician, on the honour of a baronetcy conferred on him last year, an honour which is not only a recognition of his eminent services to the science and art of medicine, but reflects distinction upon the School in which he was for so many years a successful teacher.

Appeals have been made in previous years for the endowment of Medical Research and for Funds to enable the School adequately to teach subjects which can never be remunerative from the fees of Students alone. It is with the greatest pleasure, therefore, that the School has to record further benefactions to this end during the past year.

Dr. Douglas, of New York, who has previously given generous evidence of his interest in the School by the endowment of the Douglas Studentship for Research with reference to the treatment of Cancer by Radium and X-rays, has during the year made a further promise to endow a Demonstratorship of Pathology with special reference to the treatment of Cancer for the next five years at a cost of £300 per annum.

A bequest of about £1,400 by the late Dr. Desvignes has also been received for the purposes of Research in the Bacteriological Department.

By the will of the late Dr. Pavy the School has received a sum of £2,000 for the maintenance of the Gymnasium built in the Residential College at his expense, and so liberally assisted by him from time to time during his lifetime.

By the commencement of the next Winter Session the Dental School will have been very greatly enlarged and entirely reconstructed. Much more room for patients and Students will be provided in the new Conservation Room which will be at once equipped with 72 chairs of the most modern type, together with all accessories. A considerable number of the chairs have been presented by Past and Present Students of the Dental School. The space in the new Conservation Room will be sufficient to contain no fewer than 100 chairs should the increase in the entry of Students make this provision necessary.

Larger laboratories both for Pupils and Students, and special departments for metallurgy and probationary work, will be provided so that there may be that ample accommodation which the extraordinary success of the School of recent years has rendered imperative. Arrangements are also under consideration for the more efficient organisation of this growing institution, and increased facilities are to be given to Students to obtain the utmost advantages which should accrue to them in a course of training at a combined Medical and Dental School.

On the Medical side efforts have been made both to relieve the pressure of the onerous curriculum, and at the same time to ensure that Students shall all have the opportunity of studying some, at least, of those special branches of the science of medicine and surgery which are so steadily increasing in importance, by making arrangements whereby appointments in several special departments may be held simultaneously, the teaching and hours of attendance being carefully arranged to avoid overlapping. The numerous applications for these posts have already shown how greatly these advantages have been appreciated. In the Out-Patient Department increased facilities have also been provided for old Guy's Students who may wish to avail themselves of the clinical opportunities afforded therein by the institution of numerous Clinical Assistantships for qualified men. Further particulars as to these appointments will be supplied in the forthcoming School Report.

With the completion of the various building schemes mentioned above it is hoped that the accommodation in the Medical and Dental School will be adequate for the next fifteen or twenty years, but with the exception of some munificent endowments, the capital charges incurred in the erection of the buildings and the increased cost of their maintenance and staffing, fall upon the Medical and Dental School Funds which are solely derived from the Students' fees.

The expense of the Medical curriculum is already so great that no increase in fees is possible or expedient, and in order that the work of the Medical School shall be effectively carried on and the teaching staff paid adequate salaries, some annual grant for maintenance or further endowment must be looked for. It is to be hoped that this support may be forthcoming, and an appeal is made again this year, as on many former occasions, for endowments sufficient to maintain the Medical School of Guy's Hospital at a standard worthy of its great traditions.

The TREASURER invited the Marquess of Salisbury to distribute the prizes. In doing so he referred to him as the distinguished son of a distinguished father, and as one who throughout the whole of his career had taken the deepest interest in education in all its branches. He added that he had been asked by Mr. Cosmo Bonsor to express that gentleman's great regret that, owing to the death of a near relative, he was unable to be present that afternoon. He would have the sincere sympathy of the meeting in the reason for his absence.

The MARQUESS of SALISBURY then distributed the following awards :—

LIST OF MEDALLISTS AND PRIZEMEN.

OPEN SCHOLARSHIPS IN ARTS.—Thomas Albert Victor Wood, Grammar School, Wolverhampton, £100. Frederick Laughton Gilbert Scott, B.A., Merton College, Oxford, £50.

OPEN SCHOLARSHIPS IN SCIENCE.—Leonard Snowden Debenham, St. Paul's School, West Kensington, £120. Peter George McEvedy, Preliminary Science Class, Guy's Hospital, £60. James Gaymer Jones, Preliminary Science Class, Guy's Hospital, Certificate.

OPEN SCHOLARSHIPS IN DENTAL MECHANICS.—October, 1911, George Lambert Cutts, £20. May, 1912, James Millard Barnes, £20.

SCHOLARSHIP IN DENTAL MECHANICS FOR PUPILS OF GUY'S HOSPITAL.—October, 1911, Alan Filmer Rook, £20.

JUNIOR PROFICIENCY PRIZES.—William Morris Lansdale, £20. Arthur Lisle Punch, £15. Arthur Herbert Harkness, £10. Alfred George Simmins, Certificate.

THE BEANEY PRIZE FOR PATHOLOGY.—William Heneage Ogilvie, £34.

THE MICHAEL HARRIS PRIZE FOR ANATOMY.—John Frank Herbert Stallman, £10. Arthur Lisle Punch, Certificate. Arthur Herbert Harkness, Certificate.

THE WOOLDRIDGE MEMORIAL PRIZE FOR PHYSIOLOGY.—William Morris Lansdale, Alfred George Simmins, equal £5 each. Arthur Lisle Punch, Certificate. John Stephenson, Certificate.

THE HILTON PRIZE FOR DISSECTIONS.—1911, Humphrey Quentin Forsyth Thompson, £3; James York Moore, £2. 1912, Martin Baird Moore Tweed, £3 10s.; Douglas Hugh Aird Galbraith, £1 10s.

FIRST YEAR'S PRIZE IN DENTAL SUBJECTS.—William Allen Bullied, £10. Howell Gwyn James, Certificate.

SECOND YEAR'S PRIZE IN DENTAL SUBJECTS.—Thomas Eric Henderson, £10. John William Mayer, Certificate.

SECOND YEAR'S PRIZE IN GENERAL SUBJECTS.—Charles Henry Housden, £10. William Reginald Morris, Thomas Bernice Tustian, equal Certificates.

PRIZE FOR OPERATIVE DENTAL SURGERY.—Frank Wentworth Lawrence, £10.

NEWLAND-PEDLEY GOLD MEDAL FOR PRACTICAL DENTISTRY.—Max Schneider.

GOLDING-BIRD GOLD MEDAL AND SCHOLARSHIP IN BACTERIOLOGY.—William Leslie Webb, £20. Richard Douglas Passey, Certificate.

TREASURER'S GOLD MEDAL FOR CLINICAL MEDICINE.—John Alfred Ryle.

TREASURER'S GOLD MEDAL FOR CLINICAL SURGERY.—Trevor Braby Heaton, Harold Webb, equal.

THE MARQUESS OF SALISBURY, after distributing the prizes and medals, said :—

Lord Goschen, Ladies and Gentlemen,—My first duty is to offer, on your behalf as well as on my own, our respectful congratulations to the gentlemen who have been successful in winning these prizes. They will undoubtedly look back to this day as witnessing the culmination of their efforts, the reward of their industry, the recompense for their long months, or years, perhaps, of study. When they come to be famous doctors and surgeons, whose names are household words, they will still preserve a corner in their memories for the recollection of their first or early success. They belong to a great profession, and they have learned its higher instruction under the shadow of the great and ancient institution of Guy's Hospital.

Each of us must feel when he comes in his own way, however simple and humble it may be, to help in the work of a hospital, that he is on safe ground. That is not always the case with philanthropic enterprises, for most of us have qualms sometimes, and wonder whether we may not be doing more harm than good. But it is different in the case of hospitals. Here one is sure of doing good. We are all vitally interested in hospital work, for although we cannot all be doctors or nurses we can all be patients, and there must be few people who have not, either in their own persons or in the persons of their relations, had a great deal of experience of the part which doctoring and surgery play in modern life. Certainly I have had my share of that experience, and I have come to the conclusion that there is nothing a great surgeon will not confidently essay—no organ of the human body, however vital and deep-seated, with which he will not deal as easily and with as little reluctance as most of us eat our dinner. (Laughter.) That is the patient's point of view. And I can add this much more, that I am quite sure none of us who have been patients would have been able to have pulled through with anything like the same comfort had it not been for the wonderful institution of nurses in this country. I confess that I am lost in admiration of nurses (laughter)—of all nurses, I mean, not of any particular person whose special qualifications might attract those who are not looking at the matter from this point of view. They are called upon always to be cheerful, skilful, industrious, although, in private practice, at any rate, they may often have to deal with tiresome patients and rude patients. They are bound to resent nothing, and to do their best to serve and cure them, however badly the beneficiaries may behave.

The calling of the doctor also—the calling to which these young gentlemen are devoting themselves—entails the greatest devotion, industry, and skill. It is a noble calling. I do not know very much about the life of a London physician, but I have seen a great deal of the lives and careers of the country practitioners, and nothing in its way can be more generous and less selfish. They are very hard-worked and very ill-paid. At least I may say, without invoking any controversial matter, that there is a certain feeling abroad, that doctors are not paid well enough. But evidently they are able to take care of themselves. Personally, I should find it difficult to say when a doctor was well-paid enough, considering

all he does; and sometimes his work goes far beyond the qualities I have just mentioned, it becomes heroic. An acquaintance of my own has been engaged in research upon the sleeping sickness in Africa. A young man—for he is not more than that—he has lived for many months in a sleeping sickness camp, exposed constantly to the attack of the insect which conveys the infection. Had it assailed him, the bite would have been not only serious, but almost certainly fatal. Yet with his life in his hands, in pursuit of science and of some means of alleviating mankind, he has spent many months in the area of danger. Ladies and gentlemen, that is, indeed, an heroic side of human nature. No action done by soldiers in the field deserves greater praise, more respectful admiration.

The subject of research was touched upon in the report of the Dean. It is the wish of those who are responsible for Guy's Hospital to do their utmost to promote research. And what a field it is! When we reflect upon the enormous advance that medical and surgical science has been able to achieve during the last few years, and when we think of the great prospects yet open to it, we hesitate to suggest even the vaguest limit to what may be possible. All the wonderful discoveries of science, the antiseptic and aseptic treatments, bacteriology, X-rays, and allied therapies, are absolutely modern. They were unknown a generation ago. Not only are these achievements great in themselves, affecting beneficially hundreds of thousands of lives in all parts of the world, but they open up vast prospects of further advance. I earnestly hope that the wishes of those who are responsible for the pursuit of research in this country, and especially in this institution, may be fulfilled, and that we at all events may do our utmost to push forward the knowledge of, and the interest in, this great branch of scientific study.

I should like, if I may do what is rather rash, to venture upon a word of criticism. Do you not think that the hospitals of London especially—although the fault is not confined to London—are in one sense too generous? This is a subject which has very often been discussed, and no doubt discussed with far greater ability than I can pretend to possess. But considering the enormous advantages which hospital treatment confers upon the patient, it seems to me that it is rather too indiscriminately given for nothing. Of course, in the case of the poor—of those who cannot pay—by all means let them have freely the benefit of the skill and experience which are available in the hospital. But is it not true that many people who avail themselves of the hospitals could pay something and do not pay anything? Is that wise, fair, and good? In these days when money is so much wanted—when you ask, and rightly and properly ask, and I hope successfully ask, for more ample provision of funds and more endowments, is it well to neglect what seems an obvious thing, namely, making some demand upon those who use the hospitals and who can and ought to pay? Indeed, I go further, ladies and gentlemen. I cannot help thinking that if the great hospitals laid themselves out to provide more paid accommodation, they would be able to attract patients who are quite rich. Why should not rich people, if they pay according to their means, have the opportunities for care and treatment that are provided by a great London hospital? The other day, when one of the greatest ladies of the land was suddenly stricken down by illness in Canada, she had to go to a hospital. Although a royal duchess, there was nowhere else for her to go. If that can be done in Canada, why not in England, and in London? And what a vast opportunity it would give for the acquisition of those funds which are so urgently required if the hospitals laid themselves out—as I venture to put it—for the needs of every class, and not only for those of the poorer class.

There is one further consideration. When people have not got a house suitable for the purpose—which is usually the case—and when they are, if I may use the expression, too great swells to go into the hospital when ill, they go to a nursing home. Now there are some very good nursing homes, but I have often thought that if we are to have so much interference as we have nowadays by Parliament, it would be an advantage if Parliament turned from other things to the inspection of nursing homes. At any rate, I have heard stories of nursing homes which would make the hair curl. But with accommodation provided in these great hospitals for the well-to-do as well as for the poor there would be an end of these nursing homes. At any rate, I offer that respectful suggestion by way of criticism and comment, and, in conclusion, I have only to repeat the congratulations I have already expressed to the medallists and prizemen of to-day, coupled with my best wishes for their future welfare and for the welfare of the great institution to which they belong. (Loud applause.)

Mr. CHARTERS SYMONDS (Senior Surgeon to the Hospital), proposed a vote of thanks to the Marquess of Salisbury for his presence, for presenting the prizes, and for his address. He hoped that the appeal for further support for research would pass far beyond those walls. They were all agreed that no department of medicine required greater support at the present time. It was scarcely necessary to remind the meeting that the Marquess of Salisbury was not only the representative of a noble house with a distinguished ancestry, but he had already served the State in very important positions, in the House of Commons as Under-Secretary for Foreign Affairs, and in the House of Lords as Lord Privy Seal and President of the Board of Trade. His ancestry was so much bound up with the history of England as to require no recapitulation, but they could hardly omit mentioning his father, the *great* Lord Salisbury, who did so much to uphold the dignity of England in the councils of the nations. They had heard a good deal of late of degeneracy and of the "idle rich," but here was a good instance of inherited ability. Could any family, noble

or otherwise, show three finer men than the Marquess of Salisbury and Lords Robert and Hugh Cecil? Had it not been for the constructive criticism of Lord Robert Cecil in the House of Commons more than one measure would have required a Commission for its interpretation. He regarded the presence of the noble Marquess here to-day as an evidence of his interest in medical education and of his recognition of the efforts of the Medical School for the public welfare. Turning to the subject of the Hospital itself, Mr. Symonds said: "The community you have honoured is composed of the hospital with its accommodation for some six hundred patients and a staff of two hundred and fifty nurses, and of a Medical School containing some four hundred and fifty students. The Hospital has been kept abreast of modern requirements, and this, so far as the older part is concerned, without rebuilding, a tribute to the sagacity of the founders, the wisdom of successive governors, and, above all, to the foresight, united effort, and whole-hearted devotion of two men with whose names Guy's of the early part of the twentieth century must ever be associated—our sometime Treasurer, Mr. Bonsor, and our Superintendent, Sir Cooper Perry. The School of Medicine which you especially honour to-day stands first in the the number of students among similar institutions in this metropolis, a position not attained without much thought and hard work on the part of all concerned, but chiefly by the Dean, Dr. Eason, the essential head of the School. Permit me to digress for a moment that I may refer to the resignation of Dr. Eason. He has piloted us through many dangerous waters with the skill of a practised helmsman. He has on all occasions been watchful of the students' interests, and has placed before all other considerations his duty to the School. His wide knowledge and experience, however, will happily still be available. Though quantity does not involve an equal worth, we venture to assure you that no effort is spared and no expenditure grudged to provide the best possible scientific and practical training. To do more to preserve and pass on to our young men some touch of the fine traditions inherited from those great teachers who have adorned our School. To help them to acquire a formed opinion, an educated outlook, to enable them to view with a sense of proportion and in true prospective those problems which they must face in after life. There is, I venture to think, about our School a measure of that inexpressible influence, urging to high endeavour, best seen in those seats of exquisite learning, the old Universities. Like that which broods over a noble ancestry, it is a precious possession of which no one could rob them, though we might spoil such an inheritance by our neglect. This has done much to keep up the higher life of the community in which you find yourself to-day. It is in the name of such a community, no mean unit in the life of our nation, that I offer you our cordial thanks."

Dr. HALE WHITE (Senior Physician to the Hospital), seconded the vote of thanks. He said that, as the Marquess of Salisbury had indicated in his speech, there were really two Guy's—the hospital which ministered to the sick, and the medical school. They knew that Lord Salisbury would have come with equal graciousness to the help of either. That day he had come to the medical school. From what he himself had said they were made aware that their visitor of that day knew a great deal about the science of medicine. The speaker's memory went back to 1894, to a celebrated address of the late Lord Salisbury, who was an earnest student of biological science, in which he considered the whole science of evolution, and drew forth such a charming speech from Professor Huxley after the address was over. The love of science was thus an inheritance in the son, and he felt that on that ground, if on no other, they were fortunate in having had his presence with them that day.

LORD GOSCHEN put the vote to the meeting, and it was carried by acclamation; the Marquess of Salisbury briefly responded.

The company afterwards partook of tea in the colonnade quadrangles, the Royal Meister Orchestra rendering a programme of music. The Hospital, the Residential College, the Wills Library, the Gordon Museum, and the School Buildings were open for inspection by the visitors.

The Royal Meister Orchestra, under the conductorship of Mr. Eugène Maney, whose playing was much appreciated, gave the following programme:—

1. March, "Sounds of Peace" (Von Blow); 2. Valse, "Wiener Burger" (Ziehrer); 3. Selection, "Sunshine Girl" (Rubens); 4. Humoreske (Dvorak); 5. Rêve (D'Ambrosio); 6. Slavonic Dance (Dvorak); 7. Valse, "Love Links" (Slater); 8. Selection, "Faust" (Gounod); 9. Serenade (Piernè); 10. *a*. Babillage, *b*. Entr'acte Gavotte (Gillet); 11. Valse, "Wein, Weib, und Gesang" (Strauss); 12. Selection, "La Tosca" (Puccini); 13. Meditation, "Thais" (Massenet); 14. March, "Austria" (Nowotny).

Change of Address.

E. S. Hoare, from 17, Lupus Street, to 26, Moreton Street, Pimlico, S.W.

K. T. Khong, M.B., B.C., from 38, Love Lane, Penang, to 60, Hugh Low Street, Ipoh, Perak, F.M. States.

Dr. T. D. Manning, from Rodwell Lodge and 17, Royal Terrace, to 2, Gloucester Row. *Telephone* 440.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Papillœdema and Optic Neuritis.

CLINICAL LECTURE BY MR. A. W. ORMOND.

GENTLEMEN,—I want to draw your attention to the two very different conditions found in the optic disc when seen by the ophthalmoscope, to both of which the term Optic Neuritis has been given. The teaching some years ago was that the three cardinal symptoms of cerebral tumour were headache, fits, and optic neuritis. A cerebral tumour may be present for months and years, and produce definite changes in the optic nerve, but these changes are not due to neuritis. Neuritis implies an inflammation. The changes in the nerve head, associated with cerebral tumour, are produced mechanically, may be relieved by mechanical means, and differ markedly from those changes which are seen in genuine inflammatory states of the optic nerve. The changes found in the nerve head in cases of increased intra-cranial pressure should be termed papillœdema, choked disc, or Stauungspapille, after the Germans, and the term neuritis should be dropped.

Let us first consider the clinical appearances of these two forms of so-called neuritis, and contrast them.

The disc in papillœdema is enlarged both vertically and horizontally, and the œdema present in the tissues causes it to swell up, so that the disc forms a sort of button protrusion, coming forward from the concavity of the posterior surface of the globe (*vide* Fig. 13 Haab's Atlas). The real edge of the disc is usually invisible, but the edge of the swelling is distinct, and clearly differentiated from the surrounding retina. In acute cases, in the early stage, the œdema may be considerable, but if the fluid remains clear the disc looks "juicy"; later, when the fluid becomes slightly turbid, the disc alters in colour and the red is streaked with white. At the same time the vessels show distinct alterations, the veins are large, dark red and tortuous, the arteries being less altered, and if the pressure on them is very great they may be diminished in size. The top of the curve of the veins as they serpentine in and out of the swollen tissue is seen with a convex lens, and when focussed looks abnormally distinct, whereas the concavity of the curve in the tissues may be entirely hidden from view; the vessels then look as if cut into sections. The œdema may end abruptly, leaving the retina around the papilla quite normal in appearance; on the other hand, in severe prolonged cases it may spread into the surrounding retina, and the star-shaped figure more often found in albuminuric retinitis be seen. At this stage large flame-shaped hæmorrhages sometimes appear, also white soft-looking areas, the significance of which will be explained later. Hæmorrhages and white areas are more frequently found on the nasal than on the temporal side.

The earliest change in choked disc is usually a fulness of the central vein, and is followed by its increased tortuosity. The œdema shows itself in the upper and inner part of the disc first. The changes are more marked on the nasal side of the papilla because in the majority of cases the main mass of the optic nerve fibres, together with the capillaries pass to the nasal side of the disc. Papillœdema is always an indication of increased intra-cranial pressure. (Exceptions to this would, of course, be cases of tumours, etc., arising within the orbit, but these as a rule give local signs of their existence.)

We may find the vision entirely unaltered at first, although the amount of swelling is sometimes considerable, but an enlargement of the blind-spot may be demonstrable. When the pressure continues and increases, vision rapidly fails to an alarming extent; this fact has led to the modern teaching that in all cases of papillœdema trephining should be performed as soon as possible; a sub-temporal decompression should be carried out on the right side, if no localising symptoms suggest any other position for the operation. By this means many patients with intra-cranial tumours may preserve their sight, lose their headaches and be enabled to enjoy life again for months and even years.

The swollen œdematous disc will later on undergo changes and in some cases resolution,

the œdema disappearing and the venous and lymphatic circulation becoming re-opened; on the other hand, if the strangulation of the nerve fibres has been sufficiently great to destroy them functionally, sclerosis takes place with proliferation of the neuroglia and atrophy results.

The histological changes found on microscopical examination are due in all cases to œdema; the fluid separates the nerve-fibres and the connective tissue-fibres of the Lamina Cribrosa, filling the spaces between the nerve bundles and around the vessels, so that the tissues are like a sponge full of fluid. This œdema is brought about very simply; the central retinal vein, as it lies in the optic nerve sheath, after it leaves the nerve itself, is subjected to the increased pressure of the cerebro-spinal fluid, and consequently there is hindrance to the return of the blood from the retina. This hindrance results in an interference with the lymph leaving the retina, serous transudation ensues, and thus a vicious circle is formed, because the œdema in the tissues compresses the vein still more.

The white patches are due to degenerative changes; the nerve fibres, as the result of over stretching and imbibition of fluid swell up and are irregular in outline and varicose; these varicosities become spindle-shaped and lose their continuity with the nerve fibres, forming isolated bodies which undergo fatty degeneration (Parson's "cytoid" bodies). Other cells, phagocytes, etc., may also be present in these swellings, but the patches are mainly due to œdema and the "cytoid" bodies.

The star-shaped figure in the macular is also the result of œdema; fluid collects between the nerve fibre layer and the membrana limitans interna, the radiate shape being due to adhesions existing between the membrane and the nerve fibre layer. The fluid collects in the unattached parts; the macular itself being the centre of this attachment, and its processes radiating in all directions.

The following notes are of two cases I have recently had under my care:—

W. J., æt. 32, male, had good health until summer of 1909, when on two separate occasions he had very severe headaches, lasting some hours and accompanied by sickness.

In September, 1909, the optic discs on each side were found to be in a condition of papillo-œdema. Vision was full with glasses, patient having a small amount of hypermetropic astigmatism. In November, 1909, patient noticed that everything looked smaller with the right eye and also a little misshapen. The top of the veins could be seen by a +7, and on the left side the vessels were seen best with +5. Patient noticed alteration in his colour vision and was conscious of "green spots." The headaches were still present occasionally, but central vision remained good, $\frac{6}{5}$. A small oval area below the fixation point could be mapped out in which objects looked darker.

November, 1909. Sub-temporal decompression performed on the right side.

In January, 1910, a star-shaped figure could be seen faintly visible in the right eye. The left optic disc seen with +3. Margins indistinct, but œdema markedly less. Vision still remains $\frac{6}{5}$. Patient was able to return to his work.

October, 1910. Condition much better, swelling of discs less, seen with +2. Vision still remained good.

Had had some headache and on two occasions was seized with uncontrollable impulse to run straight forward; which he did until exhausted.

May, 1911. Patient remained well until early part of the year, but was unable to continue with his work. He died in coma rapidly and a tumour of the frontal lobe was found.

B. W., æt. 25, male, was sent to me by medical man who had discovered the presence of papillœdema. When first I saw him he seemed to be quite well and free from headache or any localising sign.

In three or four weeks' time I was asked to see him again as he complained that his sight had suddenly gone. On examination I found that he had very little vision beyond seeing light and distinguishing it from dark. On questioning his friends I learnt that he had been very quiet and lethargic the previous day, but he had not complained of anything. On looking at the

optic discs I found the swelling much increased. He was trephined the next day, but although his vision improved sufficiently to enable him to see to go about, he never regained sight sufficiently good to read by. He is still alive, and I am only sorry I did not urge the friends to allow him to be trephined on the first occasion of my seeing him.

In both of these cases the operation was done for visual purposes, no localising symptoms appeared during the course of the illness, and the headache was not continuous, and only rarely (in the first case) severe.

Turning now to the second group, we find a very different appearance of the optic disc to which the name neuritis is more truthfully applied. In these cases the disc shows little or no swelling or œdema, *vide* Fig. 12, Haab's Atlas, the whole surface is red and congested, and the ground work of the disc itself approximates in colour to the rest of the retina, so that not only is the margin of the disc blurred and indistinct, but often the position of the disc itself is only evident from the fact that the vessels can be seen converging to it. The arteries are enlarged as well as the veins, and are a light red colour and tortuous. Vision is often not affected at all, and when it is it fails more gradually and evenly than in papillœdema. The presence of hæmorrhages and white spots are not so frequently found, although there is often a streakiness of the retina near the disc where some blood has escaped from a ruptured capillary, and the red fluid runs along the sides of the nerve fibres. By the indirect method of ophthalmological examination the margins of the disc are not seen. By the direct method, however, it is possible to make out the edge of the disc even when quite invisible by the indirect method. There is little or no swelling of the disc as evidenced by the use of a convex lens when looked at by the direct method.

These two conditions of so-called optic neuritis are absolutely distinct. The pathological changes found in true inflammation of the nerve are marked leucocytosis, fibrinous exudation between the nerve bundles, and dilatation of the capillaries. The neuritic process spreads down along the connective tissue sheath by its direct continuation with those same structures in the brain—*i.e.*, the dura-mater and arachnoid. An inflammation of the nerve fibres themselves, without a primary inflammation of the connective sheath, does not usually produce any ophthalmoscopic change, but its presence is diagnosed by certain subjective symptoms such as loss of vision, pain, etc. The neuritis produced by meningitis is probably a direct extension of the inflammatory process in some cases, and in others is due to the irritation set up by the toxins present as a result of the inflammatory focus.

Optic neuritis of the inflammatory type, then, is not an indication of the presence of a cerebral tumour, but of some inflammatory focus or toxic product circulating within the tissue. A congestion of the disc as shown by abnormal heightening of its colour and indistinctness of its margin, with fulness of the vessels, is a usual accompaniment of septic infections, and these changes may be looked upon as pre-neuritic changes. If the septic process continues or increases the congestion may pass into an inflammation; on the other hand, if the febrile attack passes off, resolution will result.

A cerebral tumour may be present for months or years without giving rise to any inflammatory changes in the optic disc, and a true neuritis of the optic nerve such as is often found in association with meningitis may last for months without producing any papillœdema. It must, however, be remembered that a condition of meningitis may produce an inflammation of the nerve, and at the same time, owing to the increase of fluid within the brain, there may be sufficient rise of the intra-cranial pressure to produce a papill-œdema. On the other hand, a cerebral tumour due to a tubercular mass within the brain may cause an increase of the intra-cranial pressure and papillœdema result. If now the tubercular process spread, a tubercular meningitis may supervene.

About 30 per cent. of cases of otitis media show changes in the optic nerve head, generally of a very slight kind, amounting to little more than a mere congestion of the disc, but there

may be definite optic neuritis with obvious inflammatory changes in 6 to 7 per cent.

I have also noticed distinct changes in the optic disc in case of otitis media months after the radical operation has been performed, and in marked contrast to papillœdema, the neuritic condition takes a long time to recover and return to the normal, and during the whole period the vision may have been entirely unaffected.

The pathological changes found in the optic nerve due to inflammation are the result of the irritation of the toxic products producing that inflammation, and may be bacterial or chemical toxins. These toxins affect the blood vessels as well as the nerve fibres.

The diagnosis of early conditions of optic neuritis is a very difficult thing in some cases and requires careful analysis of all the clinical points as well as an appreciation of the ophthalmoscopic picture. It is also very important to come to a right conclusion as changes in the nerve head may assist in the differential diagnosis of many diseases, especially in children. It must be clearly borne in mind that the disc in children is redder than in adults, also in many febrile diseases, pneumonia, typhoid, scarlet fever, etc., there are slight but definite changes noticed both in the colour and distinctness of the optic nerve, which changes are probably due to the presence of a general toxæmia. They usually remain slight, but occasionally become sufficiently pronounced to be designated neuritic. You will find in the text books the statement that optic neuritis is a complication of these febrile diseases, but the neuritis is never as pronounced as in cases of meningitis; and the disc changes in papillœdema are much better marked even in the early stages. We might tabulate the ophthalmoscopic appearances of these two varieties of so-called optic neuritis, thus :—

Choked Disc.

Much swelling, disc seen in focus with + lens.

Papilla enlarged in three dimensions: height, breadth, and length.

Edge of disc not seen.

Edge of swelling quite distinct.

Retina may be invaded by œdema and white star-shaped figure forms at macular.

Disc colour altered by addition of white to it.

Hæmorrhages and white patches may be present especially on nasal side of disc.

Neuritis.

Little swelling.

Disc normal size.

Edge of disc generally seen, with direct method, but not by indirect method.

Edge of swelling indistinct, tails off to surrounding retina.

Disc colour altered by addition of red to it.

Hæmorrhages infrequent and small.

White patches also, infrequent and small.

Appointments.

Naval and Military.

Staff-Surgeon G. L. Buckeridge, R.N., to Haulbowline Hospital and Yard.

Captain W. H. S. Burney, R.A.M.C., has been placed under orders for service abroad during the forthcoming trooping season.

Territorial Force.

For attachment to other than Medical Units:—

Lieutenant P. C. P. Ingram, from the 2nd London Field Ambulance, to be Lieutenant, dated 8th June, 1912.

Civil.

R. Davies-Colley, M.C., F.R.C.S., has been appointed 5th Assistant Surgeon to Guy's Hospital.

F. J. Steward, M.S., F.R.C.S., has been appointed Full Surgeon to Guy's Hospital.

Charters J. Symonds, M.D., M.S., F.R.C.S., has been appointed Consulting Surgeon to Guy's Hospital.

J. G. Taylor, M.D. Cantab., has been appointed one of the Medical Referees under the Workmen's Compensation Act, 1906, for County Court Circuit 29 (Chester, Mold, and Flint and Holywell County Courts).

With Professor Kitasato in Japan.

BY HILDRED B. CARLILL, M.D.

DURING the course of a recent visit to Japan, I was anxious to visit the Institute for the Research of Infectious Diseases, which is directed by Prof. Kitasato, under appointment from the Japanese government.

My previous experience of visits to Japanese hospitals did not lead me to think that I should have much difficulty in gratifying my wish, although I possessed no introduction to the director or his staff. Letters and telephone messages, however, met with little or no success, and I found that visits from "foreiquen" were not encouraged at the Institute.

By good fortune I made the acquaintance of a Japanese gentleman of some standing in the city of Tokyo, and to his eflorts I owe my success. I have no wish to exaggerate my difficulties, and the following extract from an amusing letter written by my Japanese acquaintance to a mutual English friend will, I hope, show that I have not done so.

> "*Re* Dr. Carlill, Kitasato's hospital said to me that someone without introduction telephoned yesterday to the hospital as to whether the hospital shall be visited by him or not.
>
> "The general principle is that the hospital is *not* public for visitors, so they are now going to ask Prof. Kitasato's view about this and not yet come to the conclusion to permit or not. Was it Dr. Carlill? Now *re* his ask for visit one day, I just now saw a friend (as it takes much time to see Kitasato) and asked him to negotiate with Prof. Kitasato to permit my friend (it means Dr. Carlill) to let him visit the hospital, who told me as under:—'The same is quite non-open to visiter, but if you guarantee gentlemen, then he will at once ask Kitasato to get the permission (*special* permission) and will let you know whether he succeed or not. That gentleman can come up only after he is advised, not before. Recently the hospital people are asked by many foreiquen to inspect, but all have been refused.' The circumstances being as above, I will not fail to let you know the answer, as soon as I get same, which kindly note."

The reply being satisfactory, I took train to Shinamaya, a suburb some three miles from Tokyo, completing the journey by rikisha. The Institute stands prominently on a hill amid extensive grounds. In a corner of these, near the drive, the coolie pointed out a tree, which was, as I learned later, planted by Prof. Koch during a visit a few years ago.

After exchanging my boots for sandals, I had a short time to wait. Of the three pictures in the waiting room, that of Prof. Koch, a large portrait, occupied the place of honour. A photograph of delegates to an international congress of twenty years ago, showing Dr. Kitasato as the youngest member present, and his diploma of Fellowship of the Royal Society, signed by Lord Rayleigh, made up the number.

The Professor came in shortly afterwards, greeted me with kindness and hoped that I spoke German. Imagine a man, short according to the western standard, inclined to stoutness, thick-set, and dressed in a grey frock coat, his keen eyes beaming good nature and merriment from a square intellectual head, the thick crop of short hair and the moustache more than almost grey, his bearing erect and alert. Prof. Kitasato at once gave the impression of having more than the ordinary capacity necessary for research work, and of thriving upon the excess, which he is thereby able to carry through.

I found that the Professor spoke but few words of English and an interpreter was sent for. One of the main desires of the Japanese all over the country is to learn English, and their success in this greets the foreigner in many unexpected places; German, however, is the "foreign" scientific language, and I learnt from the doctors in the hospitals and medical schools that Japanese medical students are taken through the medical curriculum in the German language as well as in their own.

After I had signed the visitors' book the Professor went through the names and pointed out the signatures of several well-known men. I recollected the burden of the letter which I have quoted, when I counted but thirty names to the past four years, of these thirty, two were English.

Accompanied by Dr. Tsurumi, a member of the staff, we then started to inspect the buildings, and I learnt that the Institute for the research of infectious diseases, with Dr. Kitasato at its head, was founded in 1892 by the Private Health Association of Japan. Dr. Kitasato had at that time recently returned from a prolonged residence in Germany, where he had been working under Prof. Koch.

Later on, the work was transferred to its present site, and in 1899, the Institute became a national enterprise. Six years after this the Japanese Government sent the work of their lymph and serum institutes, which were also under Dr. Kitasato's care, to the Research Institute, and in 1906 the premises were rebuilt.

The Institute is controlled by the Home Department of the Imperial Government, and attached to it is a hospital for over 50 patients. Post-graduate lectures in bacteriology are given.

The work of the Institute is divided into six departments. Dr. Kiyoshi Shiga and Dr. Sahachiro Hata, perhaps the names best known to us in England after that of Dr. Kitasato himself, supervise two of these.

There are some 25 to 30 paid assistants. The Institute consists of two main buildings. In one of these are the director's laboratory, and the special rooms for the heads of departments, the pathological and bacteriological museums and the library. The other building contains the hydrophobia research laboratory, a large chemistry section and various workshops connected with the manu-

facture of sera. In addition to these buildings I was taken over the culture media manufactory, the animal houses, the plague laboratory with its glass furniture, the lecture room, the microphotographic room, the stables, the building set apart for blood collection, the lymph manufactory, the engine room, the rooms for bottling and packing serum and lymph, the disinfecting room, the clerical section and the crematorium for dead animals and infected material.

At a short distance from these buildings are the residences for the medical and clerical staff and for the veterinary surgeons. In the course of our visit over the Institute, we went into the private laboratories of Dr. Shiga and Dr. Hata, to whom I was introduced. I found that the latter was busy working on salvarsan, the former at typhus and dysentery.

Dr. Kitasato himself is engaged in research on tuberculosis.

Two branches are maintained by the Institute, one on Oshima Island, for collecting venom from the Habu or poisonous snake of Japan, the other at Chemulpo in Korea, for the manufacture of lymph.

In one of the rooms I saw set out a number of wooden models of horses, ten or twelve, varying in size to represent the total output of sera and vaccines during 1908. On the largest model was written, diphtheria, antitoxin serum, 341,220 c.c.

In the making of culture media, very large amounts of meat are used, and I was told that in 1909, over 4,000 pounds each of beef and horseflesh were required.

The animal house is built upon a large scale, and contains over 150 cages for small animals. At my visit I saw no empty cages. The sheep and goats are kept in a separate house and some way off is the building for monkeys and cats. Some idea of the inoculation work done at the Institute is obtained by the following figures:—

Number of Animals employed in 1909.		Excess over number used in 1907.
White mice	8,000	3,000
Guinea pigs	5,650	1,650
Rabbits	1,400	700
Cats	425	400
Monkeys	65	55
Dogs	50	—
Goats	4	—

In the lecture room I was shown a bust of Prof. Kitasato. This was presented to the Institute when he returned to Japan after investigating with Dr. Aoyama the cause of the epidemic of plague in Hong Kong during 1894.

The stables are extensive and can accommodate over 300 horses. Near by is the paddock, and on the other side the building in which the horses are inoculated and the serum collected. Some of the devices for holding the animals during these operations are very ingenious.

In addition to the horse stables there is separate accommodation for 100 calves.

The Institute co-operates with the various leprosy hospitals and has charge of the 50 or 60 lepers in the Christian Charity Hospital at Meguro, a suburb of Tokyo. The latest statistics show the number of lepers in Japan to be over 23,000.

The serum treatment of diphtheria, as mentioned above, and as will be seen by the table at the end, occupies a large place in the work of the Institute. Since 1893, when this method of treatment was announced by Von Behring and Kitasato, over 10,000 patients have been treated in this way, with a mortality or about 10 per cent.

As a result of its ravages during the Russo-Japanese war, an investigation is being made of the disease known as "kakke," at the instance of the Army Department. Japanese workers in Java have found that "kakke" is identical with beri-beri.

Another disease which is receiving special attention is known as "Tsutsugamuchi" or flood fever. This is a local malady of the northern district, and is caused probably by nites, which are found on river beds, and which are said to live on the ear of the field mouse. The symptoms of the disease resemble those of enteric fever.

Very few poisonous snakes are found on the mainland of Japan; of these the "Habu" is of far the greatest importance, and exists in large numbers in the Kagoshima and Oshima prefectures. I was shown a specimen in the museum. The mortality caused by this snake was at one time about 13 per cent. annually out of 400 patients. In consequence of treatment by anti-venomous serum this figure has been reduced to about 4 per cent.

Considerable attention is being paid to the bacteriology of trachoma, which prevails very widely in Japan.

The lymph supply of nearly the whole country is produced by the Institute. The average annual amount which is prepared is sufficient for four million persons. Each tube of lymph contains enough for five persons and costs five sen (three-half-pence). The largest output in a month was two million tubes, or enough for ten million persons. This was during an epidemic of variola, in 1908, when compulsory vaccination was enforced.

The hospital has an Out-Patient and In-Patient Department. The former is largely used by patients living at home, who come for inoculation against hydrophobia. Over 50 patients a day are inoculated against the disease, each treatment lasting about three weeks.

The In-Patient Department consists of 50 beds. There are two wards, each of which is divided into a large room and six or eight separate rooms. These are sparsely furnished, and, though well lighted, appear gloomy and depressing. The bed in each room occupies the centre of the floor, and in one wall is a deep recess, containing no bed, where the nurse may rest at night in special cases.

The hospital admits patients for research purposes, and in a third of the cases pays for their treatment. Patients are admitted suffering from every kind of medical complaint, except small-pox, cholera, and plague.

Diseases do not appear to be separated, as we are accustomed to find them in England. Thus, in neighbouring rooms, I was taken to see an acute case of scarlatina in an adult and a man suffering from locomotor ataxia who was about to receive his first dose of salvarsan. The charts are weekly sheets, the post-meridian periods being emphasized by broad yellow bands across the paper. Temperature, pulse and respiration records are marked by red, green, and blue lines, respectively, drawn with coloured chalks. The total effect is one of untidiness, and one instinctively recalls the place one knows, where such a thing is a rarity.

The diagnosis and case records are written in German, in all cases, as a means of limiting the knowledge of the patient about himself.

The following statistics from the years 1899—1908 may prove of interest :—

	Total Cases.	Cured.	Died.
	3,639	3,124	499
Diphtheria	2,657	2,343	307
Typhoid	298	236	56
Dysentery	207	187	20
Kakke (Beri-beri)	77	61	15
Tetanus	64	27	37
Erysipelas	62	58	4
Influenza	37	36	0
Pulmonary tuberculosis ...	31	4	27

In a further letter I may have something to say of the things which I saw in the hospital which is connected with the Japanese University at Tokyo, and of what I learnt of medical education in Japan from a visit to their magnificent medical school.

The expression of the upward flight of this nation to the heaven of western ideals is a truism. It is symbolized in a sense by one of the Japanese recreations, the flying of kites. Fifty of these in the air at once, when conditions are favourable, is no uncommon sight in a small place. Yet such thoughts as these, the thoughts of progress, were brought home to me with greater force by an incident which occurred that day than by anything else which I saw.

My rikisha, taking me by devious ways from the sera and vaccines of the Research Institute was stopped in a narrow path by a quaintly ordered procession connected with the religious observances of Shintoism, the national worship of ancestral spirits.

Before concluding these notes, I wish to acknowledge my grateful appreciation of Professor Kitasato's kindness in allowing me to occupy so much of his time, and in giving me facilities for learning so much of the work which is done in the home of scientific Japan, the Institute for the Research of Infectious Diseases.

"Empress of India,"
Pacific Ocean,
May 3rd, 1912.

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 277.*)

THE ALLEYS.

"*If you wish to have a just notion of the magnitude of this City, you must not be satisfied with seeing its great streets and squares, but must survey the innumerable little lanes and courts.*" DR. JOHNSON.

The innumerable little lanes and courts, whilst bearing witness to the magnitude of the City to which they belong, sometimes add a story of former greatness which was their own.

To-day if we descend the stairway from the western side of the Bridge Approach we shall find that the roadway, continuous with Tooley Street to the east, between the riverside warehouses and the Bridge House Hotel, is named Montague Close. Originally the site was occupied by the cloisters of the monastery in connection with the priory church of St. Mary Overie. After the dissolution of the monasteries by Henry VIII., the close came into the possession of Sir Anthony Brown (Viscount Montague), who built a mansion here. Within the same close (according to a legend popular with the historians of the 17th and 18th centuries, but rejected by later authorities), stood also the mansion of Lord Mounteagle. It was by the miscarriage of a letter intended for Montague, the story runs, which fell into the hands of Lord Mounteagle, that the Gunpowder Plot was divulged. Beyond doubt, however, the heads of certain of the conspirators came to adorn the gateway of London Bridge hard by. Whether as a reward for this happy discovery as the old writers assert or for another reason, for a hundred years the inhabitants of the Close enjoyed exemption from actions for debt, trespass, etc. As a consequence, the place became a resort for defaulters and lawbreakers of all sorts until the early eighteenth century, when this scandalous privilege was suppressed, the indignant inhabitants withdrawing to augment the numbers of the more famous sanctuary of the Mint, opposite St. George's Church. The story of these eighteenth century "Alsatias," including those in Whetstone Park (Lincoln's Inn Fields), Fulwood's Rents (Holborn), and Milford Lane (Strand), makes curious reading at the present day.

Stoney Street, which traverses the present market, and opens into Southwark Street, was continued, before the latter roadway was cut in the thirties of the last century, under the name of Counter Street to join the main stream of the Borough at the apex of the "island" of bank premises of which we have spoken previously. The name still survives in Counter Court, a little "backwater" which intersects the island.

Stoney Street is of great antiquity. It is believed to have been a paved causeway in Roman times leading from the southern main roads to a *trajectus*, or ferry, by which, before any permanent bridge existed, the legions crossed to Dowgate and Watling Street in the City of London, the *Augusta* of the early Roman occupation. There is another Stoney Lane in Tooley Street which was similarly connected by ferry with the northern bank in the neighbourhood of the Tower.

Southward from the extremity of Counter Street you will find St. Margaret's Court. The name is the last pale phantom of the parish church of St. Margaret which, in pre-Reformation times, stood at the junction of Long Southwark with Stoney Street. The church had fallen into a ruinous condition when the two parishes of St. Margaret and St. Mary Magdalene combined in 1540 to purchase the conventual church from Henry VIII. to serve as the common parish church under the new style of St. Saviour's.

Counter Street derives its name from the institution into which the remaining portion of the old church was converted, the Southwark Compter, a courthouse and prison. The Compter (popularly pronounced Counter), was so called from *computare*, "because," says Minsheu, "whosoever slippeth in there must be sure to account and pay well too, ere he get out again." The building was destroyed in the Southwark fire of 1676, and rebuilt in 1686, on a small colonnade leading to a tavern, above which was a courtroom where once a week was held a court of record for all debts, damages, and trespass. Under a pediment in front of this hall was a statue of King Charles II., which was removed in 1793 to the roof of a watch-house in Three Crown Court, still existing between Bedale Street and Stoney Street. A figure of Justice which, with one of Wisdom, had formerly supported the Lord Mayor's seat in the hall, was also there placed near the bar of a neighbouring coffee-house. Hence this *jeu d'esprit*, which may possibly explain why watchmen were called "Charlies":—

"Justice and Charles have left the Hill,
The City claimed their place;
Justice remains at Dick West's still,
But mark poor Charles's case.
Justice, safe from wind and weather,
Keeps the tavern score,
But Charley, turned out altogether,
Keeps the watch-house door."

The statue subsequently found a resting-place in a garden in New Kent Road.

The Borough Compter had been removed to Mill Lane, Tooley Street, and this courthouse in the Borough became the Southwark Town Hall, where every Monday a court was held by the Steward for the City of London for all debts, damages, etc., within his limits; besides which there were three court-leets held here for the Great Liberty, the Guildable, and the King's Manor, in which were chosen constables and *ale-conners*.

Opposite the Hall were held the parliamentary elections. The Hall was built of brick, having the front cased with stone. It was in three storeys, the lower or basement storey, containing the entrance, was rusticated; the second storey ornamented by four pilasters of the Ionic order, with an entablature and projecting cornice; and the third storey was surmounted by a balustrade. Lower down the street we have still, in the shops at 148, an Elizabethan four-storey building which, prior to the 'eighties, still retained its projecting upper storeys and some highly ornate stucco work in relief.

On the eastern side of the way there still exist some of the courts mentioned by Strype in 1722. Mermaid Court, now visible between the halves of the untenanted draper's shop immediately north of the Blue-eyed Maid Tavern (the "Blew Maid" of the map), in Chapel Court, "hath an open court, indifferently well built and inhabited; hath a long passage down steps to a Bowling green. . . The Half-Moon Inn is parted from the Bowling green by a ditch." The Bowling green Alley and Tennis Court which to-day remain at the back of Mermaid Court are rather disappointing. "Angel Alley . . . a very handsome place with new brick buildings and well paved, but as yet thinly inhabited."

White Street, which has long since disappeared, "begins at Blackman's Street, runs by St. George's Church and falls into Long Lane and receives Kent (Tabard) Street: it is not over-well built or inhabited."

"Blackman's Street is broad, but the buildings and inhabitants not much to be boasted of"!

Opposite St. George's Church stood, in the sixteenth century, Suffolk Place, a royal residence which Henry VIII. had acquired from his brother-in-law, Charles Brandon, Duke of Suffolk, who received in exchange the palace of the Bishop of Norwich in St. Martin's-in-the-Fields. Henry converted it into a coinage mint, and the name has survived to the present day in Mint Street.

Queen Mary gave the property to Nicholas Heath, Archbishop of York, who sold it in 1557, and a great number of mean dwellings were then built on the estate. By the eighteenth century, we learn from Strype, the chief entrance was by *Mint Street* (now Marshalsea Road), opposite the Church, running into *Lombard Street*, thence into *Suffolk Street*, and so into George Street, each entrance having its gate. Suffolk Street and George Street had open passages into St. George's Fields. "Then on the North Side are several Places intended to be built, several foundations of Houses being laid, but whether they will be finished is a Question." It became early an asylum for *debtors, coiners*, and *vagabonds*, and of *traitors, felons, fugitives, outlaws, condemned persons, convict persons, felons defamed, those put in exigent of*

outlawry, felons of themselves, and *such as refuse the law of the land*. These were further reinforced after the hornets' nest in Montague Close had been smoked out. In the reign of William and Mary, and again in that of George I., statutes were passed ordering the abolition of its "privileges." The latter statute relieved from their creditors all debtors of under £50 who had taken sanctuary there. Nahum Tate, once poet laureate and partner in the Tate and Brady collaboration, died here. The place is the scene of Gay's "Beggars' Opera," so that we have, fortunately, a view at second hand of one of its interiors in Hogarth's picture of a scene from that play.

The Mint was one of Jack Sheppard's haunts; and Jonathan Wild stabled his horses at the Duke's Head in Redcross Street, within the precincts. Illicit marriages were celebrated here after the fashion of the more famous practice of the Fleet Prison. Officers of justice who ventured to pursue their quarry within bounds did so at the risk of being held under the pump till almost suffocated, or of being soused in the Black Ditch.

A contemporary journal of July 20th, 1723—eighteen months before Thomas Guy's death—tells us, "on Tuesday last some thousands of the Minters went out of the Land of Bondage, alias the Mint, to be cleared at the Quarter Sessions at Guildford, according to the late Act of Parliament [9 & 11 Geo. I.]. The road was covered with them, insomuch that they looked like one of the Jewish tribes going out of Egypt; the cavalcade consisting of caravans, carts, and wagons, besides numbers on horses, asses, and on foot. The drawer of "The Two Fighting Cocks" was seen to lead an ass loaded with *geneva*, to support the spirits of the ladies on the journey."

Outside the western entrance, by the "Fighting Cocks" whose potman figures in the narrative just quoted, was Hangman's Acre. Here, in 1720, were hanging in chains the murderers of the landlord of one of the Mint taverns. Other inns within the "dirty dominion" were the "Labour-in-Vain," and "Royal Oak" in the Borough, and the "Naked Boy" in Lombard Street.

An old narrative informs us that in May, 1718, James Austin, "inventor of the Persian Ink Powder," desiring to give his customers a proof of his gratitude, invited them to partake of an immense plum pudding weighing 1,000 lbs., a baked pudding of a foot square, and the best piece of an ox roasted. The principal dish was put in the copper at the Red Lion by the Mint, and had to boil 14 days. From there it was brought to the Swan Tavern on Fish Street Hill, accompanied by a band playing "*What lumps of pudding my mother gave me.*"

The monstrous pudding was to have been divided in St. George's Fields, but apparently the smell and the "enough-for-all" size of it were too much for the Minters. The escort was routed, the pudding taken and devoured, the whole ceremony being thus brought to an end before Mr. Austin's customers could have a chance.

(To be continued.)

A Case from the Genito-Urinary Department.

The following notes may prove interesting. C. Y., a boy aged 15 years, employed as a house boy, came to Out-Patients complaining of a scrotal swelling which he had noticed accidentally some days before. He had not suffered any pain, but stated that there was a certain amount of "dragging" sensation on the left side of the scrotum.

On examination: pubic hairs were present, scrotum normally developed. Both testicles were of normal size and gave the ordinary testicular sensation on being pinched; but in the left side of the scrotum was a "stony-hard" tumour—the size of a small walnut—oval in shape, but rather flattened on the inner side. It was not tender. The attachment was difficult to make out, but the general consensus of opinion was that it was attached to the epididymis, though almost separate from it. The cord was not thickened. Inguinal glands were not enlarged.

It was considered to be a solid tumour—possibly an endothelioma because of its position. Patient was seen again in a week's time, and there was no sign of the tumour having increased in size. On transillumination, with an electric light and the field of observation darkened carefully, it was thought by a majority of observers to be translucent, and consequently cystic in nature, an encysted hydrocele of the epididymis being thought to be the probable explanation. The extraordinary hardness and the position of the swelling, however, were considered enough to make this diagnosis very doubtful, and the case was admitted for operation.

Operation revealed a solid tumour attached to the globus major of the epididymis. The cord was normal, and a thorough examination revealed no enlarged glands. Castration was performed on the left side, and the cord was divided high up through a hernia incision.

The pathological report on the sections cut from the tumour showed it to be a fibroma with no sign of malignancy.

The case is interesting in itself and also as illustrating a fallacy to which some attention has recently been drawn, that transillumination with a powerful light may be possible even through a solid tumour. The translucency test was devised when candles were the usual means of artificial lighting, and now that lamps of many candle power are usual there is considerable risk of the unwarned being led astray.

H. W.

A Letter of Lilian.

DEAREST,—It's simply frightfully fashionable to be serious just now. It doesn't much matter what about—only you must be certain that something isn't which ought to be, or is which oughtn't. Geoffrey says the "is which oughtn't" class is the most interesting, but I told him for a girl the other is really *nicer*.

The Boldero woman it was who started it. You know she was just a tiny thought on the edge, till she started her "Earnest Evenings."

My dear, they were simply crammed! She gave a little harangue, and said what we all wanted was a conviction to develop the Soul—to make it *emanate*. That we must be convinced that something essentially *is*. Perfectly sweet she was. But it is rather sad, all the nice chatty little flirty men have gone out of fashion, and it is sometimes rather a strain.

I went to see Geoffrey's Hospital having a garden party the other day. It was so funny, you know. I always thought people in hospital groaned and looked wretched and had their heads done up in bandages. I asked a dear little old man if he was suffering very much and he got quite red.

In the wards there were little money-boxes on the doors. Well, I put half-a-crown in every one I saw. The doctors (or whatever the young men call themselves) simply beamed. I think some of them must be awfully hard up, because a good many of the beds were empty. Anyhow, they were awfully pleased. They've got a funny little motto on the tea cups, which Geoffrey said meant you won't get any money till you're too old for it.

Oh! and there was a dear little hair-dye squirt in one of the rooms which the patients use when they feel septic or something. I squirted over one of the doctors: he was very nice about it, but the brown stuff made such funny little trickles down his neck that I simply died!

Geoffrey is perfectly sweet, *chérie*: he got mother and Stella into the tent and brought some tea stuff: frightfully diffy he said it was because everybody was talking doctor-shop and getting absent-minded, and wouldn't move out of the way, so he said he'd better take me to the doctors' club where the tea was better.

He got terribly serious, tho': he said how would I like him to get tea for him always or something: and in another year or two he would be making a little money and there was always his grandfather.

The dear got quite wretched about it: he has simply splendid eyes when he's wretched. I said he'd be sure to fall in love with one of the pretty little nurses with their chic little white caps. But he says it's against rules to talk to a nurse, and anyhow they are much too serious about their work to want to talk.

Well, I don't know, as they say.

Thine ever,

LILIAN.

Pass List.

University of Oxford.

FIRST EXAMINATION FOR M.B. DEGREE.

HUMAN ANATOMY AND PHYSIOLOGY.

R. J. W. A. Cushing.	O. G. Parry-Jones.
F. L. G. Scott.	D. M. P. Whitcombe.

SECOND EXAMINATION FOR M.B. DEGREE.

PATHOLOGY.

F. A. Hampton.	J. F. Venables.

University of Durham.

At a Convocation holden June 25th the following degrees were conferred:—

M.B.

H. L. James.

B.S.

R. C. H. Francis.	H. L. James.

At Examinations held recently the following candidates were successful:—

FIRST EXAMINATION FOR M.B. DEGREE.

CHEMISTRY AND PHYSICS.

R. S. Millar.

ELEMENTARY ANATOMY AND BIOLOGY.

C. T. Helsham.

SECOND EXAMINATION FOR M.B. DEGREE.

ANATOMY AND PHYSIOLOGY.

J. F. Carter Braine.	C. C. H. Cuff.
Jap-ah-Chit, M.R.C.S., L.R.C.P.	D. Richards.

THIRD EXAMINATION FOR M.B. DEGREE.

MATERIA MEDICA, PHARMACOLOGY, PUBLIC HEALTH, MEDICAL JURISPRUDENCE, PATHOLOGY, AND ELEMENTARY BACTERIOLOGY.

C. R. Smith.

Royal College of Surgeons, Edinburgh.

Leonard Myer, M.R.C.S., L.R.C.P., L.D.S., having passed the necessary examination, has been admitted to the Fellowship.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

National Insurance Act.

DEAR MR. EDITOR,—Most of your remarks on the subject just now nearest the heart of the general practitioner have harped on the "Trades Union tactics" which you accuse the B.M.A. of adopting. It is about time you dropped cheap sneers and easy criticism to bring forward some plan of your own to fight the wily politician.

The few remarks you have published from old Guy's men were met with the astounding retort that "Passim" only reflects the personal opinions of the Editor. How long has the G.H.G. existed to air the views of one man? And, if it is so, the said Editor must realise his responsibility. His lucubrations may carry no weight with his readers who are in practice and who read the GAZETTE for news of their Alma Mater and for guidance in their work, not in professional politics, but they may have much influence in forming the opinions of those who are still at the Hospital, the great majority of whom will be G.P.'s another day.

Just now the mind of the general practitioner is filled with anxiety; he recognises that the next few months are going to see his relations to the public profoundly modified. Viewed from the happy security of the colonnade, the issues at stake may seem quite simple, but, believe me, this is no academic dispute—it is, in many a case, a fight for life.

Once I also was a medical student, and held beautiful views of life, and, in particular, of the relations between the grateful patient and his self-oblivious doctor. But the said doctor has other duties besides self-oblivion; possibly he has others to provide for, and, anyway, it is up to him to maintain the status of his profession. His great responsibilities, to say nothing of his high mental attainments, entitle him to a position above the average. Possibly the more he is looked up to the more likely are his behests to be obeyed. The respect and affection won by contempt for gain is tempered by contempt on the part of the recipient of his favours. It takes a fine mind, Mr. Editor, to appreciate what can be had for the asking.

The services of a medical man are peculiar; not, perhaps, so difficult to value, as invaluable. It would be easy to fill a column or two with remarks on the duties of the doctor to the community, but it does the latter no harm to be reminded occasionally that it has some to the doctor, and if it, or a section of it, for its own ends, or even in ignorance, tries to exploit the profession, the better way must be pointed out, and that with no faltering hand, and it can only be done by showing that the great majority of medical men are bound by a common feeling. That they have seen fit to bind themselves by a mutual bond is nobody's business but their own. It is deplorable that it is necessary, but the fact must be recognised that we are a mixed body, only human after all; some are weak, and, after past experiences, not altogether trustful of their fellows. The feeling of confidence, however, which has been induced by the extensive signing of the "pledge" is more than valuable, in that it has made men realise how small a proportion of their colleagues are shy of trusting their fellows.

The tactics adopted by the B.M.A. are no more peculiar to Trades Unionism than to any other associations. There is not, and never has been, any suggestion of a "strike"; such a thing is impossible, and it is ridiculous to discuss it. A business offer has been made us; we refuse it, and tell the offerer upon what terms we will undertake to do the work asked for. The old conditions of contract practice are bad and out of date, the public who have, naturally, taken advantage of it (and us) acknowledge it, and are prepared, now that they see it come to an end, to aid us in a reformation. At this moment I am convinced the only real obstacle to that reformation is the not quite complete solidarity of the medical profession. The attitude which you have adopted throws no light on dark places, helps in no way, can only result in delaying much to be desired reformation. Remember, Mr. Editor, the sower of the wind may have to deal later on with a whirlwind; the present medical student is the future G.P.

Realise, Sir, your own responsibility. Amongst the blind the one-eyed man is king, and his subjects are apt to adopt any aspect of affairs which so great a man may put before them. Beware how you start the budding practitioner on a course of disloyalty to his profession. The great majority of those doing contract work at present, and they may be presumed to know as much about the matter as others, have shown themselves ready to make great sacrifices for the sake of the future, and it is up to those who will follow them and reap the benefit to give their hearty and loyal support to them in this struggle.

We shall lose nothing in the eyes of those of whom we have the care by showing that we can take care of ourselves. The false sentiment which made the medical man scorn the business side of his work is out of date. Most of us are in the profession to get a living, and, I hope, have chosen it as that of the highest ideals, one of which is *not* posing as public benefactors.—Yours faithfully,

T. DAVYS MANNING.

Weymouth,
July 16th, 1912.

Papers by Guy's Men.

A. P. Beddard, M.A., M.D., B.C., F.R.C.P., and C. M. Plumptre: A Further Note on Ochronosis associated with Carboluria.—*Quarterly Journal of Medicine*, July, 1912.

Percival P. Cole, M.B., B.Ch., F.R.C.S.: Subperiosteal Hæmatoma.—*British Medical Journal*, 13th July, 1912.

C. G. Douglas, M.A., M.B., B.Ch., B.Sc. (in collaboration with others): The Laws of Combination of Hæmoglobin with Carbon Monoxide and Oxygen.—*Journal of Physiology*, vol. xliv. No. 4, also The Cause of Absorption of Oxygen by the Lungs.—*Ibid.*

Herbert French, M.A., M.D., F.R.C.P.: High Blood Pressure and the Commoner Affections of the Arteries.—*Lancet*, 13th July, 1912.

W. Sampson Handley, M.D., M.S., F.R.C.S. : Hyperthyroidism.—*Clinical Journal*, 10th July, 1912.

R. Lawford Knaggs, M.D., M.C., F.R.C.S., and another: A Case of Tubal Pregnancy. Development to Term without Rupture; Lithopædion (skeletonisation); Perforation; Peritonitis; Operation; Coincident Uterine Pregnancy; Subsequent Delivery of a Living Child.—*Lancet*, 13th July, 1912.

C. S. Morris, L.R.C.P., M.R.C.S., L.D.S. Eng.: Radiography and Root Treatment. A Paper read before the Metropolitan Branch B.D.A., 24th April, 1912.—*British Dental Journal*, 1st July, 1912.

R. W. Murray, F.R.C S.: The Ætiology of Torsion of the Testicle.—*British Medical Journal*, 6th July, 1912.

Constant Ponder, M.D., D.P.H.: The Examination of Diphtheria Specimens. A New Technique in Staining with Toluidin Blue.—*Lancet*, 6th July, 1912.

R. B. Recordon, L.D.S.: Notes on a Case of Dental Cyst.—*British Dental Journal*, 1st July, 1912.

A. H. Tubby, M.S., F.R.C.S.: The Structure and Functions of the Foot.—*Journal of R.A.M.C.*, July, 1912.

Notices.

Royal Naval Medical Service.

The next Examination of Candidates for the Royal Naval Medical Service will be held at Examination Hall, 8—11, Queen Square, Bloomsbury, W.C., on the 30th September next and following days.

The number of appointments to be offered for competition is 15.

The Regulations for Entry and the form to be filled up by Candidates will be supplied on application to the Medical Director-General, Admiralty, London, S.W. The form accompanied by the necessary documents should be returned not later than the 19th September, 1912.

Candidates must not be under 21 nor over 28 years of age on the day of the commencement of the Competitive Examination, and must be registered under the Medical Act in force, as qualified to practise Medicine and Surgery in Great Britain and Ireland.

The Examination will consist of:—(*a*) Medicine, including Medical Pathology and Therapeutics; (*b*) Surgery, including Surgical Pathology and Clinical Surgery.

Marks will be allotted as follows:—

Medicine.—Paper, 400; Clinical, 400; Oral, 400; Total, 1,200.

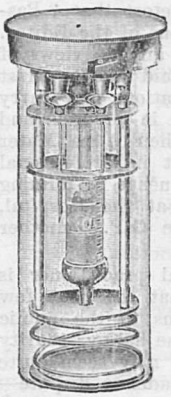
Surgery.—Paper, 400; Clinical, 400; Oral, 400; Total, 1,200.

Admiralty, June, 1912.

Specialities.

The "Caird" Hypodermic Tank, etc.

Messrs. R. SUMNER & Co., Ltd., of 50a, Lord Street, Liverpool, have sent us a specimen of a most useful appliance for keeping a hypodermic syringe and needles always sterile and ready for use. It consists of a glass tube, fitted with a rubber-lined metal lid, fastened on by means of a bayonet catch. Within the tube there is a removable metal rack, carrying a 20-minim (1 c.c.) syringe of the Record pattern, and six needles: the latter are entirely made of nickel, and therefore do not rust or become blunt. The syringe and needles fit into holes in the rack, and the whole concern is immersed in some antiseptic and dehydrating solution, such as Lysol in Rectified Spirit, or, better still, "Brytstele," a solution which is sold by the Medical Supply Association. For carrying purposes, the glass tube is covered by a metal cover, also fastened on with a bayonet catch. The whole apparatus is extremely convenient, and is sufficiently small and light to be carried in a surgeon's bag. It is a great advance on all previous methods of carrying hypodermic syringes, and should prove most useful for giving local anæsthetics, or administering vaccines, etc., in addition to ordinary hypodermic medication. The price is very moderate, namely, 12s. 6d.



Births.

MINETT.—On 5th July, at 25, Dorset Square, N.W., the wife of Surgeon Percy F. Minett, R.N., of a son.

WATSON.—On 14th July, at Wootton Bassett, Wilts, the wife of John N. Watson, M.R.C.S., L.R.C.P., of a son.

WICKHAM.—On 26th June, at The Nursing Home, Sarum Road, Winchester, the wife of Leonard L. Wickham (née Gertrude Morrah), of a daughter.

Marriages.

CRABB-TANNER.—On 10th July, at Emmanuel Church, Hampstead, by the Rev. Dundas Harford, M.A., assisted by the Rev. P. F. Young, M.A., and the Rev. H. J. Tanner, M.A., Alfred Phillips Crabb, of Regent's Park, N.W., to Florence Isabel Tanner, daughter of John Tanner, M.D., M.A., LL.D., F.L.S., of Claremont House, Hampstead, late of Queen Anne Street, W.

WATSON-LINDSAY.—On Tuesday, 2nd July, at the Parish Church of St. Peter de Merton, Bedford, by the Rector, the Rev. J. E. Gilbert, Walter Ernest Watson, L.D.S., of Bedford, to Gertrude Edith, younger daughter of Charles A. Lindsay, J.P., of Aberdeen.

Eds.—E. G. S. & A. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 629.] AUGUST 3, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	305–307
Appointments	307
Papers by Guy's Men	307
Notes of the Cases shown by Mr. Symonds during his last round	308–311
Hail and Farewell!	311–312
A Case of Left-sided Subphrenic Abscess due to an Empyæma of the Gall Bladder ...	312–313
Three Cases from Aural Department ...	313–314
Correspondence	314
Change of Address	314
Colles' Fracture.—Clinical Lecture by Mr. Hughes...	315–319
London Bridge and the Borough in the Eighteenth Century (*continued*)	319–321
Pass List...	321
Rickets.—A Paper read before the Physical Society by Mr. J. A. Ryle	322–327
Cricket	327–328

Passim.

ON Monday, July 22nd, Mr. Charters J. Symonds went the round of his wards for the last time. His Monday rounds had become such an established feature of hospital life and work that at first it was difficult to realise that they were to be no more; but relentless Time had decreed it so, and Mr. Symonds, though not by any means too old at sixty, was promoted from the active to the consulting staff. A large following of old house-surgeons, dressers, and ward-clerks, and some of the staff, accompanied the surgeon on his last round, and they were representative of the great number of Guy's men out in the world, who owe their success in examinations and in practice largely to the sound surgical teaching and training which they received from Mr. Symonds. Some of the cases shown are described elsewhere in the present issue of the GAZETTE. At the end of the round the company had tea in Lydia, and a silver rose-bowl "from some of his grateful and affectionate pupils" was presented to "Charters," who expressed his thanks in an interesting speech, in which he said that the teaching part of his work at Guy's was perhaps that which he relinquished with the greatest regret. He also paid a well-deserved tribute to the sisters in charge of his wards, whose loyal co-operation is so essential for the success of operative work. The close of the proceedings was marked by a pleasing little ceremony, when Col. Elcum, on behalf of the past and present firms, presented Mrs. Symonds with a bouquet of carnations.

A MOST successful dinner was held at the Criterion Restaurant on the evening of the same day, at which Mr. Symonds was the guest of his past and present firms. Between seventy and eighty—some from distant parts of the country, and all of whom had been associated with Mr. Symonds, sat down to dinner under the presidency of the last house-surgeon. The toast of the guest of the evening was proposed by Mr. W. H. Bowen, of Cambridge, who is one of the first, and one of the most distinguished of Mr. Symonds's former house-surgeons. Mr. Symonds replied in a most entertaining speech, in which he gave interesting reminiscences of surgeons and surgery of the old school, and of his experiences as operator, teacher, and examiner, and he hinted in passing that his now increased leisure might be employed in the writing of a clinical work on surgery, a suggestion which was received with acclamation.

So ended Mr. Symonds's long and honourable career on the active staff of the hospital and medical school of Guy's, to which he has given his ripe experience, his operative skill, and his great example in keenness and resource. Elsewhere in this issue of the GAZETTE will be found some account and appreciation of his work here. Probably the writers of the future only can estimate at its true value the importance of Mr. Symonds's pioneer work in many branches of surgery, Here we are more con-

cerned with his associations with the hospital, and it is needless to say more than this: that his is one more case of a man's life-work being summed up in the simple word "Guy's." "Guy's," in return, has given him the great honour of a place on the consulting staff, and, while wishing him good-bye as a member of the active staff, we hope that Mr. Symonds may enjoy many years in his new position and may still be a frequent visitor to the hospital.

WHILST we sincerely regret the decision of the British Medical Association to break off negotations with the Government on the Insurance Act, we derive some consolation from the fact that, though in a somewhat grudging spirit, the Association is willing to work the portion of the Act dealing with Sanatorium Benefit. It would have been a most fatal step had the boycott been extended to this genuinely beneficent part of the general Insurance Scheme. We doubt very much whether the younger members of the profession are as yet fully alive to the opportunities which lie before them in regard to this tuberculosis work. A study of the Interim Report of the Departmental Committee on Sanatorium Benefit reveals the fact that at last a definite coherent attempt is to be made to deal with the problem of tuberculosis on a large and inclusive scale. No complaint can be raised as to the rate of remuneration to be given for medical work under this scheme, and those in charge of it are determined to secure the best administrative and clinical skill which they can command. For many reasons it will almost certainly come about that the appointments under this part of the Act will largely fall into hands of the younger members of the profession, and it will show a lamentable lack of foresight if those to whom such openings are possible pass them by with scant regard.

IT may be said that the scope of this Sanatorium work is limited and unduly specialised, but further consideration will show that such criticism itself lacks breadth and wideness of outlook. The essential fact to be realised is that at last a national attempt is being made to deal with a particular disease, and that an immense stride has been taken in the direction of practical preventive medicine. Years ago, when free education was introduced, few would have prophesied that by this time such an Act should have led on by inevitable steps to the establishment of School Clinics, School Medical Officers, and the many other results of this policy. Similarly, we maintain, this decisive attempt by the nation to deal comprehensively with tuberculosis will undoubtedly lead on to the national organisation of medical forces against many other equally urgent problems of disease. It is all-important, both for the nation and for the profession, that every opportunity should be taken to realise to the full the possibilities now lying open before us.

THE prospects of the future in Medicine must lie along preventive lines. Already there is often an unconscious conflict between the work of a medical officer of health, with his fixed income and independent position, and that of the general practitioner, whose income decreases proportionately with the decline in the sickness rate of his locality. Medicine is the one profession whose work tends towards its own extermination, and with the now rapidly increasing extension of preventive medical work, those fighting in the ranks of general practitioners see more or less clearly their own decline. Salvation must come through adopting the principle that the more important function of doctors is to assist people to keep well rather than the attempt to cure them when they are ill. The Insurance Act, though incomplete and faulty in details we admit, marks, nevertheless, the commencement of a new era for Medicine—an era in which it will be as increasingly advantageous to the profession as to the public to promote good health in the widest sense, and the responsibility for hindering its inception is one not lightly to be borne. We would therefore urge upon those who are at the outset of their career carefully to consider these new aspects of medical work, and to pause ere they unthinkingly drift into the old and outworn tracts of the medical practice of the past.

The Residents' Going-off Dinner took place on Tuesday evening, July 30th, and was, if possible, even more successful than its predecessors. The absence of Mr. Hind was a subject for universal regret, but, his successor in the Presidential Chair, Mr. Mullally, fulfilled his functions with his accustomed skill and Hibernian enthusiasm. Both he and Mr. Dobson, the retiring Vice-President, carry away with them the hearty good wishes of all. The election of Mr. McNair as the new President, and Mr. Mutch as Vice-President, was deservedly popular, and there is no doubt that in their hands the traditions of the Residents will be worthily upheld. Many speeches were made during the evening, many songs were sung, but further details are unnecessary; the whole combined to form a most enjoyable and memorable evening.

A useful addition to the work of the Hospital has recently been instituted by the establishment of a Baby Room in Clinical reserved for cases of epidemic diarrhœa. In this new ward, situated over Sister's Room in Clinical, infants suffering from this devastating complaint are being specially cared for, and the innovation is one which cannot fail to be of the greatest advantage to all concerned with it. As yet, fortunately, the annual epidemic of infantile diarrhœa has not arrived to any marked extent, but later on in the year the existence of this additional and special accommodation for such cases will bring relief to many an anxious House Officer.

We would offer our very heartiest congratulations to the 1st and 2nd cricket teams on their respective successes in the Inter-Hospital Competitions, as a result of which the two cricket cups have returned to their rightful resting place at Guy's. Mr. Andrew has led his team through a very satisfactory season in every way, and the slackness, which last year undoubtedly lost the Hospital many games, has entirely disappeared. After the final match the team were the guests of the President of the Cricket Club, Mr. Fagge, at Dinner; and were at a later date entertained by the Residents. It is to be hoped that the possession of both the cups may be an adequate stimulus for even greater keenness next year, and for their retention at Guy's for many seasons.

We much regret that owing to a mistake no acknowledgment was made in our last issue of the excellent photographs of the Garden Party very kindly supplied by Mrs. Shenton.

Appointments.

The following appointments and re-appointments have been made by the Treasurer upon the recommendation of a Staff Meeting:—

Demonstrators of Chemistry.—Messrs. R. W. Merriman and Harold Rogerson, M.Sc.

Dental Anæsthetists.—Messrs. H. Gardiner and G. T. Mullally.

Naval and Military.

Captain C. H. Reinhold, F.R.C.S.E., I.M.S., is appointed Specialist in Advanced Operative Surgery to 4th Quetta Division from 1st May, 1912.

Civil.

A. W. Ewing, M.R.C.S., L.R.C.P., is appointed District Medical Officer, Ware Union.

A. C. Fry, M.B., B.C., is appointed District and Workhouse Medical Officer, Stone Union.

V. A. Jaynes, M.R.C.S., L.S.A., is appointed Certifying Factory Surgeon for the Bermondsey District, co. London.

Papers by Guy's Men.

J. F. Briscoe, M.R.C.S.: Appendicitis in Private and Public Hospitals for the Insane.—*British Medical Journal*, 20th July, 1912.

F. G. Hopkins, M.A., D.Sc., M.B., F.R.S.: Feeding Experiments. Illustrating the Importance of Accessory Factors in Normal Dietaries.—*Journal of Physiology*, Vol. xiv, Nos. 5 & 6.

F. T. Paul, Ch.M., F.R.C.S.: Personal Experiences in the Surgery of the Large Bowel. (The Address in Surgery delivered at the Eightieth Annual Meeting of the B.M.A.)—*British Medical Journal*, 27th July, 1912.

L. E. Panting, M.D. Oxon, M.R.C.P., F.R.C.S.: Uterus Unicornis Found at an Operation for Appendicitis.—*British Medical Journal*, 20th July, 1912.

Eric Bellingham Smith, M.D., M.R.C.P., and another: Two Unusual Forms of Meningitis occurring in Infancy.—*Lancet*, 27th July, 1912.

Notes of the Cases shown by Mr. Symonds during his last round.

The first case was that of a man of 35 who fell from his cart and sustained an impacted fracture of the neck of the left femur. Clinically there was marked eversion, the usual spreading of the trochanter and shortening. The man being young and healthy, Mr. Symonds thought it a suitable case in which to disimpact the fracture. After the man was fully under ether, extension by Mr. Symonds and one dresser, both using all their force, while the man was held on the table by others pulling in the reverse direction failed to separate the fragments, outward rotation and flexion to a right angle also failed. After several attempts the hip was flexed, and when the knee was well up over the abdomen the impaction gave way with a perceptible noise. Extension then diminished the shortening, and the prominence of the great trochanter, and corrected the eversion. Weight extension beginning with ten and reaching to twenty pounds in twenty-four hours was applied. A good deal of swelling followed and some pain. In two weeks the union was strong, at the end of three the extension was removed.

Remarks.—You will note the absence of eversion, for when he stands the feet are in contact all along the inner sides, also that there is no obvious shortening—the actual amount as measured by the ward clerk, Mr. Cushing, is a quarter of an inch. He can flex the hip to a right angle and can sit down on a chair without discomfort, the prominence of the trochanter is just perceptible.

I have shown the case firstly to illustrate the firmness of the impaction, for this explains those not infrequent cases where a man walks immediately after such an accident or does so after being laid up with a "bruised hip" for a few days.

I do not advise disimpaction in old people, seeing what very useful limbs result after these injuries. In all such cases the best plan is to place the limb in a comfortable position—on a pillow—and begin movement as soon as the pain of the injury has subsided, *i.e.*, in a few days. You will learn from this case that there is not much danger of your disimpacting the fracture and that an extension apparatus is unnecessary Hogden's splint used merely as a sling, and that for a week or 10 days, facilitates the nursing and relieves pain. We must not allow the muscles to waste by a long rest. Let me add that in the better classes, both men and women over 60 and 70, recover with useful limbs and little lameness.

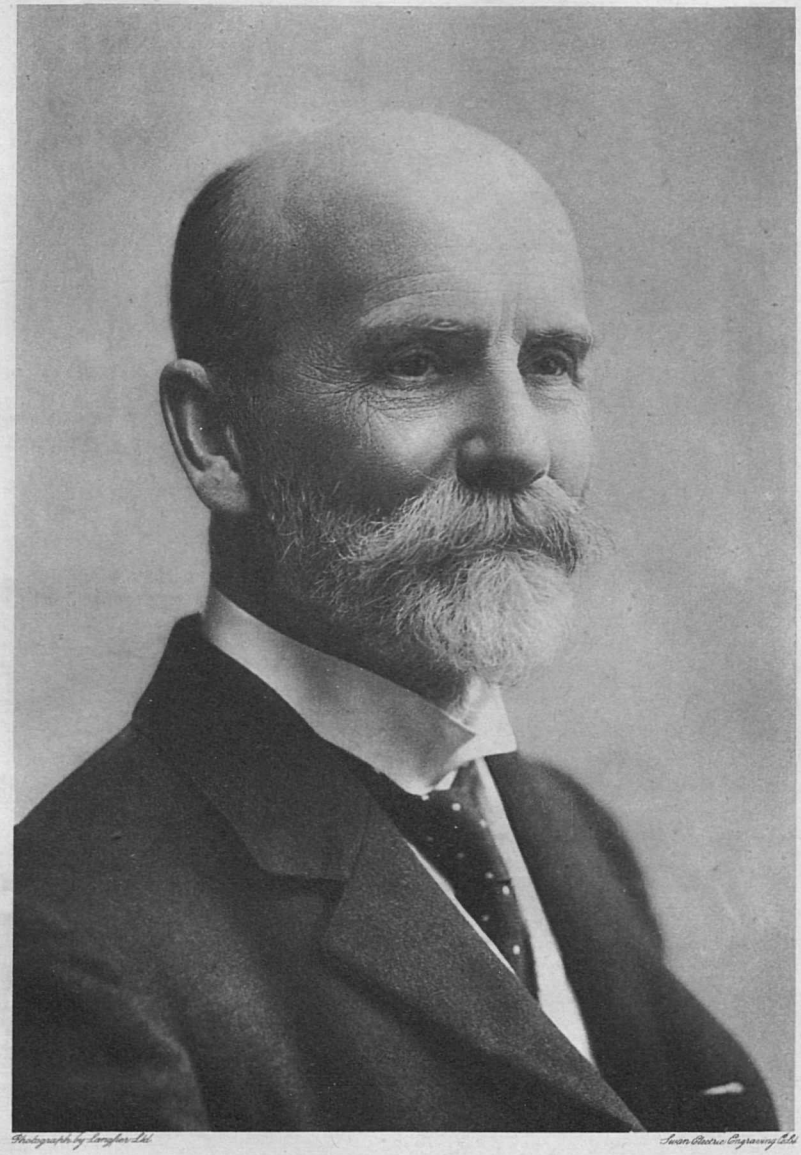
Lacerated Wound of the Knee Joint.

This was a boy of 14 who was run over by a cab which tore a flap of skin from the knee and upper part of the leg and also a ragged aperture into the joint. The first dressing was made in the night and consisted in careful cleaning of the wound. Then a gauze pad was placed over the laceration in the capsule, the rest of the flap sutured and a drainage tube also inserted under the flap. When I saw this case at the end of forty-eight hours the flap was in great part gangrenous. The sutures were removed, the flap turned over, when both surfaces were seen to be covered with necrotic points and freely suppurating. On removing the gauze pad thin pus escaped from the joint. The boy had no pain, had a good appetite, and only a moderate temperature. He was at once put under ether, the flap cut away, and the joint irrigated partly through the laceration but chiefly through an opening made above the patella. A silver catheter with a short curve to carry the fluid between the bones was used. The materials employed being first saline, then perchloride of mercury 1/2000 rising to 1/1000, and then returning to saline. The dressing consisted of first a small pad of gauze over the laceration, and of gauze packing to the rest of the wound. The majority of the gauze was changed daily, that over the laceration was left forty-eight hours. The boy has to-day a useful joint with free movement.

Remarks.—This case exemplifies the importance of treating all these injuries by the open method. Always pack such wounds with gauze, the cleaner ones you can close after four days, the others you can hold the flap over the gauze by relaxation sutures until it is clean.

I would also call your attention to the incision made for irrigating the joint, viz., above the patella. This gives free access to all parts of the joint and does not inflict the same injury as a lateral incision. No drainage tube is required nor is the incision sutured. While on this subject let me mention a case of pyæmia in which one knee and subsequently one shoulder were treated in this way, both joints recovering complete function.

Avoid drainage tubes whenever you can get an infected joint early.



Photograph by Langfier Ltd. Swan Electric Engraving Co.

Yours Sincerely
Charters J. Symonds

Separation of the Lower Epiphysis of the Femur.

This boy of nine, some fifteen months ago, had a separation with much displacement, associated with laceration of the tissues in the popliteal space. He was treated by flexion of the knee, and though movement was begun early it was a long time before the knee could be extended. The popliteal space was opened up, and some cicatricial material cautiously divided, without much benefit resulting.

Remarks.—You will note that the boy has now complete movement, and that there has been no arrest in growth. I had hoped to show you a boy who came under my care with faulty union after such an injury, for the correction of which I had to remove the epiphysial portion of the diaphysis. The question is, whether growth will take place after such an operation, and this point his case would have answered. I must, however, refer you to Mr. Hutchinson's paper in the Medico-Chirurgical Transactions (Vol. 82, 1899) on this subject. You will find recorded there a case where growth proceeded after such an operation. Let me recommend you to read and make a note of this valuable paper. You will learn that the best plan of treatment is full flexion of the knee, at first as far as the swelling will permit, and in three or four days getting the heel up to the buttock. The same method in the case of separation of the lower epiphysis of the humerus gives the best results, and is far superior to any form of splint.

Two Cases of Excision of the Knee.

The first was a woman of 23, who had tuberculous disease with ankylosis in a flexed position, and as a good deal of cicatrization had taken place, the patella being united with the femur, operation offered a good prospect.

The operation was made some two years ago, and she walked in about two and a half months. She declined, from some sentimental reason, to use crutches, otherwise she might have moved about sooner.

Remarks.—You will note that this woman walks without any limp; indeed, I do not think you could say she has a stiff knee. The shortening is just sufficient to enable her to clear the ground. The resulting shortening after excision should not exceed three quarters of an inch. This is reduced by raising the heel about one-eighth. You must have over half an inch to allow the foot to clear the ground. If fully corrected then the leg must be swung outwards or the shoulder tilted up, both movements resulting in an awkward gait.

The second case was a woman of 30, who came some years ago for a swollen knee and a localised mass in the capsule on the outer side, which proved on incision to be gummatous. For a time she improved, but subsequently returned with pain, some swelling, and inability to earn her living as a domestic servant. For over a year she was treated by the usual remedies, and later by support, and then exercises. As she had spent much time in an infirmary and was no better, the joint was excised. The capsule was found much cicatrized, and in two places were pockets containing blood-stained purulent material. The limb was put up as usual in plaster of Paris, and the first dressing made on the twenty-first day.

Remarks.—You will note that she walks quite as well as the other case, and this without any correction of the shortening. This being a syphilitic disease, I naturally wished to avoid operation, and for a long time persuaded her to persevere. The operation revealed a condition that must have taken a much longer time to recover, and then there would probably have resulted a stiff joint. She has now a sound and strong limb, and will be able to earn her living. The first case is in a situation, and finds no difficulty in performing all the duties of a domestic servant, and this woman is now about to seek similar employment. You will also observe that neither of them is wearing a support. Let me add that a support is needed in adults for a few months only, one silicate of potash splint being sufficient, whereas in children the greatest care is required to prevent flexion, support being needed practically until the epiphysis is consolidated.

Suppurating Knee Joint.

This was a woman of 36 who came in with a three weeks' history of pain in the knee. The illness began with pains in several joints and in the limbs attended with pyrexia. The general condition subsided in a few days leaving the left knee painful and swollen. When admitted the temperature was 102, the knee distended with fluid, hot and painful and the joint flexed. The diagnosis lay between a pneumococcal and gonococcal infection. Under ether, an exploring needle failing to evacuate any fluid, the capsule was opened above the patella. Sero-purulent fluid escaped which on examination later showed the gonococcus bacillus. The joint was flushed with saline and perchloride, a silver catheter being used as usual. A gauze pad was placed over the incision and the leg placed upon

a Macintyre's splint. The temperature fell at once and the local condition mended slowly.

Remarks.—It is now seven weeks since the operation and ten since the infection began; we have applied a Croft which must be changed for the lighter and more effective silicate. There is a good deal of pain on movement and the question is how far the synovial membrane and ligaments have been hopelessly damaged. You will note that three weeks elapsed before the joint was washed out, time for much destruction of tissue. Still, with early massage, rest in the country and freedom from the home surroundings (she is married with three children) which determined the malady, there is a fair prospect of a movable joint resulting. The tendency to flexion with fixation must be prevented for if ankylosis takes place the knee should be straight. In these gonococcal cases when effusion persists, early irrigation of the joint is advisable. If this cannot be managed then aspiration will do good, especially is this the case in the semi-acute cases, where the pain has subsided.

MILD SEPTIC INFECTION OF THE KNEE.

In further illustration of the value of irrigation by the method advocated, a boy of 14 was shown, who came in with a history of a brief illness ending with swelling of the left knee joint. There was slight pyrexia on admission, the joint was full of fluid, and was tender, especially at the sides. The patella could be tapped upon the femur showing that the fluid could be easily displaced and was thin. The diagnosis lay between a mild septic infection and acute tubercle. In support of the former view there was a septic ulcer over the external malleolus, which had existed some time before, and might have been due to a localised periostitis.

The view taken was that the cause was septic and not tuberculous, and seeing that the effusion had existed some days it was decided to aspirate and, if advisable, irrigate. An exploring needle, though well in the joint, failed to withdraw any fluid. On opening the capsule above the patella, turbid serum escaped with many flakes of lymph. These flakes were flat, of large size, and somewhat resembled hydatids as they escaped. The joint was irrigated first with saline, then with 1/2000 perchloride and, lastly, again with saline, and a gauze dressing applied.

On examination the fluid was sterile.

Remarks.—You see this joint about ten days after the irrigation. There is no effusion, the tenderness is less, but you will note that some thickening remains at the sides. This might of course be considered to be tuberculous deposit, but I rather incline to the view that it is due to the septic infection of the ligaments just as we have seen in the gonococcal case. The infection has been a mild one, the bacillus was dead-hence the absence of growth. The outlook is, I think, good in this case, both as regards recovery and usefulness of the joint. Had the effusion been left he still would, in all probabality, have recovered, though more slowly and possibly with some softening of ligaments.

Such conditions as occurred in this lad throw light on cases occurring in older people who come with a solitary painful joint.

Let me mention a woman between 30 and 40 with a painful knee, thought by one to be tuberculous for which an apparatus was suggested. There was some swelling and some thickening, pain on walking, and a sensation of swelling and heat after use. There was an indefinite history quite consistent with tubercle, but there were many reasons into which I cannot enter at the moment, in favour of a mild septic infection.

Practical recovery under exercise, confirmed the diagnosis and justified the treatment.

I feel quite sure that we are too apt to write all these cases down as tuberculous and thus claim too much for our success in the treatment of this affection.

SEPTIC OSTEITIS OF THE FRONTAL AND OTHER BONES.

This was a private patient who attended to show the extent to which the bone can be reproduced. He came under observation for suppuration of both frontal sinuses. On the right side extension had already taken place to the bone, though this was not observed at the time. Both sinuses were operated upon at the same time, the left healed, a scarcely visible scar resulting from the Watson-Williams incision. The swelling of the forehead did not subside on the right but gradually spread and small abscesses were opened from time to time over the frontal bone. Realising from former experience that this was a fatal disease, Mr. Symonds obtained permission after some difficulty to operate freely. Five operations were necessary to arrest the disease. In the first a median incision was made from the fronto-parietal suture to the root of the nose and from this point along each brow to the external angular process. The frontal bone was removed until healthy structure was reached, nearly the whole bone being taken

away and a suppurating dura left exposed. The wound was plugged with gauze. Extension occurred on both sides so the skin was with some difficulty dissected off the dura to which it had now become adherent, the incisions were carried along the brows, and two others were carried across the vertex from the middle line down to the ears. On turning back these flaps pus was seen at many points. The rest of the frontal, except the obital ridges, parts of both parietal, temporal and splenoids were removed. From this he recovered and the progress was arrested on the left, not so on the right. Another operation was required, involving removal of a further part of the temporal, the zygoma, outer wall of orbit, roof of orbit and the orbital ridge. When this was done the frontal lobe covered with the dura could be taken in the hand. After some time extension appeared in the malar bone and a further operation was required in which the malar boundary of the orbit, together with a remnant of the orbital ridge and part of the inner wall, were removed.

This finally arrested the process.

Remarks.—I want you to observe that nowhere can you feel free pulsation of the brain. The bone has been reproduced and is thick and strong. At first the brow was low and receding, but with the growth of bone this has come up so well that the left half looks almost normal. The deformity on the right is due to the removal of the supra-orbital ridge, a part rarely affected, and only to be removed under great necessity.

I need hardly refer to the great fortitude displayed by Mr. C., and to the immense confidence he placed in me. He used to shake hands all round before lying on the table, and when I visited him next day congratulated us that we were all there.

Other Cases shown were:—

A recent excision of a tuberculous knee in a man of 37, with extensive suppuration. He was doing well.

A complete extirpation of the larynx for cancer. The patient, by means of Gluck's device, could carry on a conversation quite easily.

A case of compound comminuted fracture of the lower end of the tibia involving the ankle in an unhealthy man. The union was strong, the ankle movable. The freedom of the joint was attributed largely to the metal drain employed while the small fragments were escaping.

Hail and Farewell!

We know very well indeed that a host of Guy's men all over the world will appreciate the loss which the hospital has sustained by the retirement of Mr. Symonds from the active staff. Hospital life, as we know it, is happy in that it is the outcome of working in harmony, and while the machinery is running smoothly and tirelessly day by day, year in and year out, we almost forget how humanly indispensable, in each separate sphere of usefulness, is every component part.

This year will be sadly memorable for the farewell applause which is showered on Mr. Symonds.

Mr. Symonds entered as a student in the year 1871, he obtained the Treasurer's Gold Medal in Clinical Surgery in July, 1875, when he also qualified as Member of the Royal College of Surgeons. During the following year he held in turn the appointments of Resident Obstetric, House Surgeon and House Physician. In October, 1876, he was made Assistant Demonstrator of Anatomy, and a year later he became full Demonstrator. While holding the latter post he obtained the degrees of Bachelor of Medicine and Surgery at London University, taking the Gold Medal in Surgery, the Gold Medal in Forensic Medicine and in Obstetrics, besides first-class Honours in Medicine. After obtaining the degree of Doctor of Medicine he was advised by one of the then Senior Surgeons to turn to the Surgical side, and in 1879 he became Surgical Registrar. His appointment to the Staff as Assistant Surgeon was in January, 1882, after taking the degree of Master of Surgery in 1880 and the Fellowship of the Royal College of Surgeons in 1881. From 1882 until 1888 he was on the Surgical Staff of the Evelina Hospital, and later, while holding the post of Assistant Surgeon at Guy's, he was in charge of the Throat department. His appointment as full Surgeon came in March, 1902.

Everybody knows that the years of service which he has given to the hospital have been years of honest unselfish and brilliant work. At such a time as this mere words are inadequate to express the debt of gratitude which hundreds of men, in far distant homes, will silently acknowledge that they owe to their former teacher and chief.

The influence of Mr. Symonds on hospital life was enormous because it was so wide. He did not only labour to teach those who had already worked for him. He had no pets. To

all those who came round his wards he freely gave with lavish hand the greatest of all gifts—the gift of personal service. Numbers of men who enjoyed and who profited by his teaching for weeks together before the various examinations in Surgery, were unknown to him by name, and he was the same to all—showing the unselfish kindness which neither asks nor expects anything in return. "I hope that man understood me, I don't known his name," he would say to his house surgeon, "please tell him to come to me again if he is in difficulties about my explanation."

Not only had Mr. Symonds great gifts as a teacher, it was characteristic of him that he worked in preparation for his rounds of bedside instruction. He was never content with merely teaching his own methods, his horizon was much wider, and he freely quoted the most recent work of others, giving the latest references both for and against his own opinions.

His relations with his firms were always those of kindly friendship. The writer, who spent some of the happiest months of his life in Job and Lydia and who also saw Mr. Symonds at play both on sea and on shore, is one of many who owe him more than they can ever repay.

To all his juniors, Mr. Symonds was always so frank and courteous: "I was wrong and you were right and I have learned something"; "I am so happy with this firm of dressers, they are always so cheerful"; "No, I don't want a Physician to see the man—I am quite satisfied with the treatment"—such remarks are quite characteristic.

He knew so well the truth that all really successful work is done quietly without friction, and this was largely the reason for the constantly happly relations between himself and his firms. It is possible, of course, to push a way through life to a foremost place by being rude, but the few people who do so never get out of the muddy road where there is always bickering, nor do they have time to enjoy the quiet fields that everywhere border the wayside of life.

For the work of junior men he was always full of encouragement. We remember him, so well, sitting quietly on the bed, listening carefully while a dresser who had been operating upon a case of empyema in his absence, described with some pride the details of the operation which had been performed. More than a year ago, when talking of his retirement from the staff at the age of sixty, he said: "I believe it to be a good rule, I still feel quite young, but I know that I ought to go off and let younger men come on." And now that the time has come for retirement we know Mr. Symonds is glad that Mr. Steward who has made such a deservedly great reputation, both as a surgeon and as a teacher of surgery, is taking up the full burden of work. Only small, mean and insignificant minds are jealous of the success of others, for it is a sign of those who are really great that they will turn and beckon and lend a helping hand to those who are following in their footsteps.

Thinking of his surgical work, one of the cases exhibited upon his last round—a man upon whom he had operated for acute necrosis of the frontal bone—was a living monument to his surgical skill and typical of his resource in emergency, an operation which was as thoroughly desperate as it was completely successful.

During that last official visit to his wards, Mr. Symonds was followed by a large crowd, and for everybody he had the same bright face and cheerful greetings. We are quite sure that for many years he will recall with pleasure the noise of the tramp of men who came, in some cases from long distances, to express gratitude and pay homage to their old chief, teacher, and friend.

A Case of Left-sided Subphrenic Abscess due to an Empyæma of the Gall Bladder.

A subphrenic abscess on the left side is almost invariably due to disease of an organ situated on that side of the body such as the stomach or left kidney. Dr. H. D. Rolleston, in the *B.M.J.*, of February 24th, 1912, and Dr. Charles Box, in the *B.M.J.*, of April 20th, each report a case of left-sided subphrenic abscess following on the perforation of a duodenal ulcer. They remark on the extreme rarity of pus collecting on the left side when the primary lesion occurs in an organ that is even so little to the right of the middle line as is the duodenum. It may, therefore, be of interest to record a case of a left-sided abscess which was the result of disease of the gall-bladder.

E. P., aged 50, a married woman, was admitted into Martha under Mr. Lane on March 1st, 1912, for abdominal pain and vomiting. The patient gave a three weeks' history of pain in the right hypochondriac region, vomiting of bile-stained matter, and occasional "shivering fits." On admission the pulse was 104, temperature 98·4°. Soon after admission she had a rigor.

Mr. Fagge operated in the evening. He exposed the gall-bladder by a transverse incision in the right hypochondriac region, and found it adherent to the gastric hepatic omentum. A stone was found in the cystic duct, and on opening the gall-bladder a small quantity of pus was found; a stone was also present. A rubber drain was put into the gall-bladder, and the patient was placed in the Fowler position on return to bed. The wound drained freely from the first. The discharge from the gall-bladder was at first purulent, but soon consisted of pure bile.

The patient ran a slight temperature for six weeks, and was quite unable to recover her strength. On April 14th signs of fluid in the left pleural cavity were discovered, and pus was drawn off. Mr. Fagge operated for empyæma on the next day, but on resecting a portion of the ninth rib, clear fluid alone was found. An exploring needle was then passed through the diaphragm, under which pus was eventually located. A small abscess was then opened up and drained through the wound in the chest wall.

The abscess appeared to drain well, but for several weeks the patient had a marked rise of temperature in the evening, and made no progress towards recovery. On June 1st a large abscess, containing old pus was opened up through the wound in the chest wall. The abscess appeared to be situated in the pleural cavity. After this the patient made an uninterrupted recovery.

It is difficult to understand why an abscess in this situation should have followed on an empyæma of the gall-bladder. Dr. Box's explanation of a left-sided subdiaphragmatic abscess being due to a perforated duodenal ulcer is that in a few cases the perforation lies to the left of the watershed formed by the forward bulge of the bodies of the vertebræ. In Dr. Rolleston's case some dense adhesions formed a channel which caused the pus to travel to the left. It is obvious that neither of these explanations are of service in this case. As has been suggested, the infection was probably lymphatic.

E. D. S.

Three Cases from Aural Department.

1.—EPITHELIOMA OF THE NASOPHARYNX.

H. P., a man of 61, attended the Out-Patient Department complaining of increasing deafness during the previous two months. Examination of the ears showed the tympanic membranes normal. Examination of the mouth and nasopharynx showed the soft palate redder on the right than the left, and a little pushed down on that side and paralysed; in the nasopharynx was a mass projecting from above almost filling up the right side; this mass was red, and indurated, and ulcerated.

On testing the hearing by means of tuning forks, the patient was found to have deafness of the conducting type due to the blockage of the Eustachian tube and the inflammation of the nasopharynx. Thus, Rinné's test gave a negative result, that is, the patient heard better through bone than air; and he was unable to hear low tones. The lowest tone a normal person can hear is represented by a note of 16 vibrations per second; this man could only hear notes of 90 vibrations and upwards. The upper end of the audible scale was heard as well as could be expected from a man of the age of the patient.

Commenting on the case, Mr. Mollison said that the case was, without doubt, one of epithelioma of the lateral wall of the nasopharynx arising about the Eustachian tube, and too extensive for operation. The case illustrates well the importance of a routine examination of the nasopharynx in all cases of deafness.

T. J. B.

2.—TOTAL UNILATERAL DEAFNESS.

John S., aged 15, a schoolboy, attended in the Out-Patient Department complaining of deafness in the left ear for the last 11 years. He had had measles at the age of 4, from which the deafness was dated, but a year previous to this he had had otorrhœa from the left ear. This otorrhœa continued till the age of 9, and then ceased. There was no history of vertigo or tinnitus.

Examination of the ears showed some impetigo of the right auricle and some wax in the meatus, but the tympanic membrane normal; the left ear contained a little wax, and the membrane showed a central scarred depression left, doubtless, by the previous suppuration.

The patient was a mouth breather, but there were no adenoids and no nasal obstruction. The boy thought he was somewhat deaf in the left ear, but it was found that he was totally deaf that side. It is interesting to note that when the sound ear was blocked he raised his voice in speaking. The fact of the total deafness of the left ear was finally proved by the use of the "noise apparatus" (Bàrány's *lärm-apparat*). This apparatus is a clock-work machine producing a whirring noise by constantly repeated hammering on a piece of cardboard fixed inside. When the earpiece of this is placed in the one ear it excludes that ear from perceiving any other noise, allowing, therefore, the opposite ear to be tested alone. The results of the tuning-fork tests were as follows:—

Weber's Test.—The vibrating tuning fork, placed in the middle of the head, was heard in the sound ear.

Rinné's Test.—On the sound side this gave a positive result, that is, the fork was heard better through the air than the bone. On the deaf side the result was negative, the fork being heard through the bone while, of course, it was not heard through the air at all. The reason for the apparent hearing of the fork when placed on the bone is that the vibrations were conducted through the skull to the sound ear.

The right ear heard the whole scale practically normally; the lowest note appreciated was one of 24 vibrations per second, the highest, 24,000 vibrations per second.

The points to note about this case is the difficulty of determining unilateral deafness without the noise apparatus. Tested without this, but with the sound ear closed firmly with the finger, the patient heard the voice easily at a distance of 2—3 feet from the deaf ear, the voice being carried over to the sound ear. In this boy's case the right ear had probably become more acute than normal to compensate for the loss of the left one. L. B. S.

3.—SUPPURATION IN THE MASTOID PROCESS WITHOUT PREVIOUS OTORRHŒA.

A boy, aged 16 months, was admitted to Naaman in July, 1912, for pain in the right ear. The right auricle was pushed downwards and forwards by a tender œdematous and reddened swelling over the upper part of the mastoid process. The appearance was absolutely typical of acute mastoiditis, and had been present five days.

On examination of the ear the meatus was normal, and the tympanic membrane was well nigh normal, except for a little irregularity; there was no pus present, and no redness of the membrane. The parent also stated there had been no discharge from the ear. An operation was performed at once, and on opening the bone, pus was found, and was traced eventually to the antrum; this cavity was opened and drained, and the patient made a good recovery.

Note.—Cases of suppuration in the mastoid antrum and cells without any previous suppuration in the tympanum are rare, but not unknown; no doubt the infection passes up the Eustachian tube through the tympanum direct to the antrum. Arrived there the inflammatory swelling of the mucous membrane shuts off the aditus, perhaps, and suppuration follows.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette." Guy's Hospital, London, S.E.*

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

London Bridge and the Boro' in the 18th Century.

SIR,—My knowledge of the local history of Southwark is not to be compared with that of your correspondent, who is now giving us such very interesting papers in the GAZETTE.

There is, however, one small addition I can make to his remarks about the liberty that existed about St. Mary's Church. It was called the Liberty of the Clink and, I believe, was one of the privileges of the Bishops of Winchester. Within the Liberty stood the Bishop's prison—known as the Clink Prison. Soldiers, not many years ago, often spoke of their prison as the Clink, and the name is used by Mr. Kipling in his ballard of "Cells"—"I'm here in the Clink for a thundering drink; and blacking the corporal's eye." Also, within the Liberty by the waterside were a numer of houses of ill-fame. I am inclined to think that Lemon Street which is, or was, near by, should more properly be Leman Street.

I believe this Liberty was a privilege attached to the Winchester House—the Bishop's Palace, and was not a Sanctuary of the Monastery of St. Mary Overie.—Yours faithfully, J. H. G.

[NOTE BY OUR CONTRIBUTOR.—J. H. G's letter is most encouraging to the amateur antiquary who is trying to discover historic interest in the dull streets of the present-day Borough.

I much regret that I have been unable to identify the Lemon Street, referred to, in any of the old maps to which I have had access. There is a *Loman Street* between Gravel Lane and Southwark Bridge Road, but this name is, I think, a personal one; for the maps of a hundred or more years ago show, in this situation, a small expanse of water under the name of Loman's Pond.

If your correspondent will accompany me in the further perambulations, which, Editor permitting, I propose to make, we shall, I hope, discover some vestiges of both Clink and Stews in the place-names of to-day.]

Change of Address.

W. R. Morris, L.D.S., to University of Pennsylvania, Philadelphia, Pa., U.S.A.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Colles' Fracture.

CLINICAL LECTURE BY Mr. HUGHES.

Gentlemen,—I have chosen Colles' Fracture as the subject of my lecture for several reasons. It is one of the commonest fractures you will have to deal with, it is an extremely easy injury to diagnose, and if improperly treated your patient will not only have but a limited use of an important part, but will also have an obvious and disfiguring deformity. This fracture is one of the lower end of the radius, and is produced by falls upon the outstretched palm when the hand is in a position of extension and complete, or nearly complete, pronation. It used to be described as occurring most commonly in elderly women, and though, perhaps, it is more common beyond middle age, it is very frequently met with in young adults and in children as young as ten years of age.

The fracture is produced in the following manner: —The patient is falling forwards and attempts to break the fall by taking a part of the body weight along the upper limbs. The shock is received upon the palm at the base of the thenar eminence, and this point becomes fixed, while the radius is drawn downwards, forwards and inwards, and yields a short distance above its lower extremity. The line of fracture is complicated and is most commonly oblique, beginning on the anterior aspect of the bone about three quarters of an inch above the lower end and running upwards and backwards to the posterior surface. It is also oblique in the lateral direction, the lower fragment being larger on the outer side than on the inner (fig. 1). Occasionally the line of fracture is transverse, but the resulting deformity is very similar.

Fig. 1.

Showing obliquity of line of fracture and the external displacement of the lower fragment. Anterior view.

Let us work out the probable position of the fragments, merely paying attention to the direction of the line of fracture and to the force producing it.

The hand, carpus and lower fragment of the radius are stationary, while the body weight tends to force the upper fragment downwards, forwards and inwards. The latter moves on the former and takes up a new position. It is easier, however, to follow if we regard the lower fragment as being the part that takes up the altered position, and it is seen to move upwards, backwards and outwards (figs. 1 & 2).

Fig. 2.

Showing backward and upward displacement External view.

This displacement is part, but only a part, of Colles' Fracture. The most important feature is the impaction of the upper into the lower fragment, and the rotation of the latter.

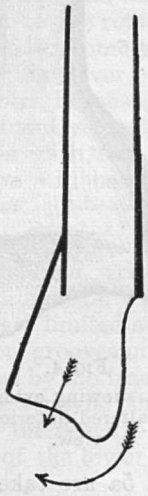


Fig. 3.

Showing the posterior impaction, the rotation of the lower fragment, and the direction of the carpal articular surface. External view of a radius bisected in the sagittal plane.

The radius is subjected to a strong compressing force along its length, and having given way the smaller broken end of the upper fragment tends to push or impact itself into the broader lower fragment. The radius, however, is not only being forced downwards, but also forwards and inwards, so that the impaction is greatest on its posterior and external sides. The result of this uneven impaction is to cause a rotation of the fragments on one another, and if we regard the lower as moving on the upper, it is seen to rotate backwards and outwards, the hinge or pivot of the movement being situated somewhat towards the antero-internal part of the line of fracture (fig. 3).

The displacement, therefore, is complicated, for not only is the lower fragment displaced upwards, backwards and outwards, but it is also rotated backwards and outwards, so that (1) the carpal articular surface is directed backwards, downwards and slightly outwards, instead of directly downwards, and (2) the styloid process is raised.

Figures 4 and 5 show an example of an old Colles' Fracture seen from anterior and posterior views.

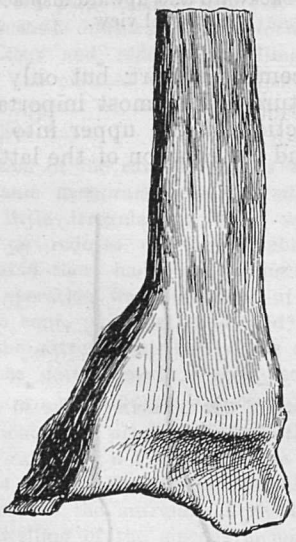


Fig 4.

Old Colles' Fracture, showing external displacement of lower fragment and altered anterior surface. Anterior view.

Figures 4a and 5a are taken from a normal radius for the sake of contrast.

The lower fragment of the radius carries with it the carpus and hand, and considerable tension is thrown upon the structures on the inner side of the wrist. If the displacement is at all marked some structure yields, and as a rule it is either the internal lateral ligament or the styloid process of the ulna. More rarely the ulna breaks about one inch or less above its lower end, and about this particular type of Colles' Fracture I shall say something later.

Fig. 5.

Old Colles' Fracture, showing (1) posterior rotation of lower fragment, so that the carpal surface looks backwards as well as downwards, and (2) the external displacement of the lower fragment. Posterior view.

Fig 4a.

Normal radius to contrast with Fig. 4. Anterior view.

One more point I wish to refer to, and that is that there is always a certain amount of comminution at the site of fracture of the radius.

Fig. 5A.

Normal radius to contrast with Fig. 5. Carpal surface cannot be seen. Posterior view.

Remember that the displacement is due entirely to the violence of the accident, and that it is perpetuated by the impaction. It is in no way due to any muscular action or spasm. Knowing the displacement of the fragments and that the hand and carpus move with the lower fragment, it is very easy to work out the signs and symptoms of this fracture.

Let us take a case where the displacement is marked. The hand is held stiffly in a position of pronation and slight flexion with more or less flexion of the fingers. The outlines of the wrist are irregular.

Viewed from the radial side, on the palmar surface immediately above the wrist joint there is a depression and above it a prominence due to the lower end of the upper fragment, while on the dorsal surface opposite the palmar prominence just mentioned is a depression and below this an elevation due to the backwardly displaced and rotated lower fragment. Viewed from the dorsal side, the hand is displaced to the radial side, so that the head of the ulna is very prominent, and the lower end of the forearm is abnormally widened. Viewed from the anterior side, the same points are noticed, but the prominence of the head of the ulna is still more marked.

So that it is easy in a well-marked case, merely by inspecting the limb, to make a correct diagnosis. After a few hours a considerable amount of blood will be extravasated in the neighbourhood of the fracture and the parts will become swollen, so that it may not be easy to see the characteristic deformity. But with the history of a heavy fall on the outstretched palm, followed by considerable pain, immobility and swelling about the wrist-joint, you need have no hesitation in making the diagnosis of a Colles' Fracture.

So far, we have merely considered the appearance of the parts, but palpation with manipulation will help in the diagnosis, if any help be needed. You must remember that in this description we are considering an extreme case; there are, of course, cases with but a slight amount of displacement, so slight that they may be overlooked in a casual X-ray examination. There is only one really additional helpful point to be made out by palpation, and that is in noting pain and the increased thickness of the lower end of the radius, when firmly held, antero-posteriorly, between finger and thumb.

I do not know if you are in the habit of trying to obtain crepitus as a sign of a fracture—it is unnecessary and in many cases harmful—but in this fracture there will be no crepitus because of the impaction.

The text-books give you other points such as alteration in the level of the styloid processes. Normally, the radial styloid process is on a lower level than that of the ulnar, but owing to the impaction and to the rotation of the lower fragment, they tend to come to lie on the same level. This point, however, is of very little value in the diagnosis, because the ulnar styloid process is so frequently fractured in marked cases, and in cases with but slight deformity, very little alteration will be noted in the level of the two processes.

Then as regards movements, all movements of the fingers, hand and wrist will be limited and painful, and supination will be impossible. These movements are limited and painful partly because the tendon grooves on the back of the radius are disturbed by the fracture, the tendons displaced and their synovial sheaths filled with blood, and partly on account of the rotation and displacement of the lower fragment of the radius.

The diagnosis then of this fracture presents very little difficulty. The only condition that resembles it, and it does resemble it very closely, is a separated lower epiphysis of the radius.

You will suspect this when your patient is under twenty years of age and over ten. But patients at this period also frequently suffer from Colles' Fracture, and in my experience a Colles' Fracture is more common among them than a separated epiphysis. Here the line of separation is transverse, impaction does not occur, and in extreme cases the anterior projection of the shaft is very prominent with a deep depression opposite it on the dorsal side, but in slight cases an X-ray examination is necessary to differentiate between the two conditions. You will also have to distinguish it from a posterior dislocation of the wrist joint, an extremely rare accident, and this will be easy because the styloid processes will still be in connection with the radius and ulna, and will form a part of the anterior projection, and not as in Colles' Fracture the posterior.

Many cases of this fracture in the past, and particularly before the use of X-rays, were diagnosed as "sprains." I am very sceptical of the existence of a "sprained" wrist resulting from a fall upon the outstretched palm, and I believe that the majority of such cases are either instances of a Colles' Fracture, or of a separated epiphysis. Before you accept a diagnosis of sprain, be very certain that a fracture does not exist.

In treating a fracture in any part of the body, our aim is to restore the normal functions and the normal alignment of the the part. In some cases we may be satisfied if the normal functions are restored, but in a Colles' Fracture we are dealing with an exposed part, where any deformity will be obvious. So that we must aim at a perfect functional result, and at the restoration of the normal alignment of the bones. In order to learn how we are best to treat such a fracture, let us take a case where the deformity has not been corrected, and where the fracture has been badly treated by the prolonged use of retentive apparatus.

The irregularities we noticed about the wrist will become more marked as the bruising passes away, and with the wasting of the muscles of the forearm which follows on the imperfect use of the part. The movements of the hand and fingers will be limited, and it will be impossible to make a strong and complete fist; flexion and extension of the wrist will be limited, as will also be the supination of the hand. All these movements will be painful, and a constant ache may be complained of in the prominent head of the ulna, in the styloid process of the radius or along the thumb, or there may be marked numbness of the fingers.

This limitation of movement is easily explained: the fracture has ploughed up the extensor tendon grooves on the back of the radius, and bruised the tendon sheaths; adhesions form between the tendons, their sheaths, and the surrounding parts, so that they no longer move freely on one another; the carpal articular surface has altered its direction so that flexion and extension of the wrist are limited, and owing to this displacement and to the uneven impaction of the radius, supination is interfered with.

The evil results of an improperly treated Colles' Fracture are due (1) to the altered position of the fragments, and (2) to the adhesions of tendons to surrounding parts. So to treat a case properly we must set to work to reduce the deformity and to prevent adhesions of the tendons.

In order to reduce the deformity, considerable force must be used, and it will be necessary to give an anæsthetic. In the case of an elderly person with brittle bones, gas may be sufficient, but with big-boned strong adults, a longer and more relaxing anæsthesia is necessary. To reduce the deformity the parts are pulled upon in a direction opposite to that of the force which caused the fracture. The wrist is fully flexed, and in this position is strongly pulled directly away from the forearm and towards the inner side, while counter extension is exerted on the forearm. When the parts are disimpacted, the fragments become movable on one another and crepitus is noticed.

Is it necessary in all cases to disimpact? It certainly is in those cases where you are able to diagnose the fracture from the appearance of the limb. In slightly marked cases where no deformity is obvious, and where skiagrams, taken in two places at right angles to one another, show that there is no displacement, it may be unnecessary. But I make it a rule in nearly all cases to disimpact. Be sure that you have disimpacted. I am constantly seeing cases with the deformity well-marked, and am told that gas has been given, and the fracture disimpacted. In these cases the parts are so firmly driven into one another, and gas gives such poor muscular relaxation and such short anæsthesia, that the operation has not been a success.

If it is impossible to disimpact under an anæsthetic, it will be necessary to proceed to an open operation.

After reduction, the most satisfactory method to follow is to fix the hand in a position of full flexion and pronation, and this you can do by using a small anterior rectangular splint, the angle of the splint being opposite the wrist joint. In this position the fragments tend to remain in their normal position. Be careful to pad well that part of the splint which is applied to the lower part of the forearm, for it often happens that a considerable amount of swelling appears here, and a pressure sore may result.

To prevent the adhesions of tendons, you must at once begin to massage the wrist and forearm, and to passively move the fingers through their full range, for by so doing you are moving the extensor tendons as they lie surrounded by their synovial sheaths in the grooves on the back of the radius. These movements and the massage are begun immediately after the reduction of the fracture, and must be assiduously carried out during the first fortnight. At the end of the first week passive movements of the wrist must be practised, a firm grip of the fractured bones being kept during the process, and at the end of the second week the movements of supination and pronation. The bones in this region unite rapidly, and it is safe to discard the splint after a fortnight and to carry the forearm in a sling, leaving the hand free.

At the end of three weeks small active movements may be performed, *e.g.*, using a spoon or fork, and then the patient must be encouraged to increase gradually the extent and strength of the various movements.

I referred early in this lecture to that type of Colles' Fracture where the shaft of the ulna is fractured about one inch or less above its lower extremity. This is an awkward complication to treat, for it is difficult to manipulate the ulnar fragments. Malunion is very liable to occur, and should it be at all excessive supination will be materially interfered with.

I show you here a specimen of such a fracture where cross union has resulted, the upper fragment uniting not only to the lower fragment but also to the radius. The result of such an occurrence is to banish all movements of pronation and supination. You will then, in order to avoid such a disaster, carefully examine under the X-rays to see whether the ulnar fragments are in good position, and you must be prepared to cut down on the ulna and fix the fragments in their normal position.

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 301.*)

III.

THE PRISONS.

". . . . *Minds innocent and quiet take*
That for an Hermitage." LOVELACE.

Stowe tells us of five prisons in Southwark—"The Clinke on the Banke; the Compter in the late parish of St. Margaret; and the Marshalsey; the Kinge's Bench; and the White Lyon."

Of the first of these we shall speak later when reviewing the country to the west of High Street; the second we have already considered; it is with the last three, "all in Long Southwarke," that we are now concerned.

Like the Compter, the prisons of the Marshalsea and King's Bench existed principally for the detention of insolvent debtors. Until comparatively late in the last century it was still possible to imprison for debt, and unless, as we have seen, the debtor was able to evade the Law and willingly resign himself to a life of outlawry in a "lay sanctury" such as that of the Mint, he was liable to arrest and imprisonment until he discharged the amount of his debt and the law costs incurred therewith—too frequently a life sentence. At one time the detaining creditor was supposed to contribute sixpence a day to the maintenance of his prisoner. This inadequate sum was frequently whittled down under various pretences, until the prisoner, unless acquainted with a handicraft he could exercise within the walls of his prison, was forced to depend for his subsistence upon such doles as could be implored from passers-by or from visitors. In general, ultimate release could only be hoped for by the distribution of a charitable bequest like the £1000 left by Thomas Guy "for discharging poor prisoners within the city of London."

For our illustration to this phase of early eighteenth century customs we may turn once more to Hogarth, whose seventh plate in the "Rake's Progress" (Soane Museum, Lincoln's Inn Fields) shows the prodigal detained for debt within the Fleet Prison, situated near Ludgate Circus on the eastern side of Farringdon Street.

The Marshalsea, "so called as pertaining to the Marshals of England," was originally erected for the committal of persons accused of offences "within the jurisdiction of the Court, which extended over a circuit of twelve miles from the Palace where the King's lodging then was, and accompanied a *progress* but not a *chase*."

It was sacked in 1381 by Wat Tyler's rebels, who seized and beheaded the marshal of this prison and the governor of King's Bench, Sir John Imworth. Here died Bishop Bonner who directed so many martyrdoms in Queen

Mary's reign; he was buried, secretly and by night, in the churchyard of St. George's. It was second in importance, only, to the Tower in Queen Elizabeth's time. Here were confined besides the debtors, those guilty of piracies and other offences on the high seas who had escaped the maximum penalty, hanging in chains in Execution Dock in Wapping.

It stood originally in the Borough High Street, between King (*Newcomen*) Street and Mermaid Court. The debtors from the Borough Compter were temporarily lodged here pending their removal to Mill Lane, Tooley Street. A description of 1777 informs us that "the buildings of this prison are greatly decayed; *but the court-room is convenient and spacious.*" In the court-room, the "Palace" of the Marshalsea, sat the Marshalsea Court until 1801, when it was removed to Great Scotland Yard in Whitehall. The prison escaped the attentions of the Gordon Rioters in 1780; but shortly afterwards it was removed to a site already occupied by the White Lyon Prison, overlooking St. George's Churchyard, where it remained till 1842, when the building was taken down and its prisoners drafted into Queen's Bench.

Stowe tells us that the White Lyon was "a gaol so-called for that the same was a common hosterie for the receipt of travellers by that sign. This house was first used as a gaol within these forty years last" (he is writing towards the end of Elizabeth's reign) "the appointed gaol for the County of Surrey." It seems to have been a tiny building of two rooms only, one above the other. Among the benefactions enjoyed by the debtors in the Old White Lyon was a donation of 65 penny loaves every eight weeks. With the abolition of this prison the benefit was transferred to the inmates of the Horsemonger Lane Gaol.

It is impossible to give a precise date for the origin of the King's Bench Prison; it was certainly instituted prior to 1304, for in that year Edward I. commanded the Courts of King's Bench and the Exchequer, which had remained seven years at York, to be removed to their old places in London. Wat Tyler's mob of Kentish rebels broke in and released the prisoners in 1381. Here Judge ascoigne committed the seventeen-year-old prince, who afterwards was Henry V., for an attempt to release one of his retainers from the hands of the law.

The original prison stood on the eastern side of the High Street where are now Layton's Buildings, having to north and south the Marshalsea and the White Lyon for its near neighbours. Daniel Defoe has left on record that it was "not near so good as the Fleet."

The building was taken down in 1758, and the inmates removed to the new prison situated at the corner where the Borough Road leaves the High Street, at that time looking over the open fields of St. George's to Lambeth Marsh.

Tobias Smollett wrote his novel, "Sir Launcelot Greaves," within the confines of King's Bench in 1759. The notorious Jack Wilkes was confined here. In 1780 the Gordon Rioters assembled in St. George's Fields, set fire to the prison and liberated the prisoners.

The building was surrounded by a wall 35 feet high surmounted by *chevaux-de-frise*. In 1776, 224 rooms were allotted to the 395 male prisoners with 279 wives and 725 children! The most scandalous overcrowding which resulted could only have been exceeded by the awful conditions which prevailed in such prisons as the old Compter, where, in 1817, 38 men, 30 women, and 20 children exercised in a yard nineteen feet square and at night withdrew to two rooms, twenty feet by nine, provided with eight straw beds apiece!

Small wonder, then, if the "Benchers" spent all their time in the open court, where was a wall adapted for the game of rackets, or, when the necessary money-payment could be raised, availed tnemselves of the privilege of roaming in the open fields within the *Rules*, bounds included within a radius of three miles from the prison. In 1842, the prison, then Queen's Bench, was incorporated with the Fleet and the Marshalsea, under the name of the Queen's Prison for debtors and prisoners committed for libel, assault, &c.

IV.

SOUTHWARK FAIR.

It would be hard to imagine, at the present day, the roadway between the Tabard and St. George's Church being given up annually, from three to fourteen days, to the celebration of a fair, with all its accompaniments of stalls, booths, theatrical performances, and bands; yet it occurred throughout a great part of the eighteenth century. The fair originated in 1462, when Edward IV. granted a charter empowering the City of London to hold a fair in Southwark every year on the 7th, 8th, and 9th of September—the Eve, Feast, and Morrow of the Nativity, whence the name of Lady Fair—with all the liberties to such fairs appertaining, together with a Court of Pye Powder. The charter was renewed by Edward VI. in 1550. The court held in connection with the Fair—*Curia Pedis Pulverizati*—is said to be derived from the dusty feet of suitors arriving in hot haste to bring their case to justice, or from *pied puldreux*, an old French name for a pedlar, from the occupation of the majority of the claimants on such occasions.

The fair in Southwark followed immediately upon the more famous Bartholomew Fair, and the showmen, having no similar fixture for the 10th of September, contrived to spin out their occupation of the Borough until the fair was at length prolonged to a whole fortnight. Here Authority intervened, and in 1743 declared that the fair must henceforward be limited to the original three days. At this the showmen, resenting the curtailment of their harvest, grew restive, and declared they would no longer continue their custom of collecting money for the debtors within the Marshalsea. The latter, naturally enough, infected with the general dissatisfaction, took to throwing stones over their wall upon the crowd outside, whereby one child was killed and several persons injured. From that time the fair was removed to Suffolk Street and the Mint. It was finally suppressed in 1763, when the High Constable,

with 100 inferior officers, forcibly prevented the showmen from erecting their booths.

Evelyn, the diarist, attended the Fair on September the 13th, 1660, and saw "monkies and asses dance and do other feats of activity on ye tight rope . . . also an Italian wench daunce and performe all the tricks of ye tight rope to admiration . . . likewise here was a man who tooke up a piece of iron cannon of about 4001b. weight with the hairs of his head only."

Pepys was here in the same year, and again on the 21st of September (the last day of the fair), 1668. "To Southwark Fair, very dirty, and there saw the puppet show of Whittington, which is pretty to see; and how that idle thing do work upon people that see it, and even myself too! and thence to Jacob Hall's dancing on the ropes, where I saw such action as I never saw before, and mightily worth seeing; and here took acquaintance with a fellow who carried me to a tavern, whither came the music (band) of this booth, and by and by Jacob Hall himself, with whom I had a mind to speak, whether he ever had any mischief by falls in his time. He told me 'Yes, many, but never to the breaking of a limb.' He seems a mighty strong man. So giving them a bottle or two of wine, I away with Payne the waterman. He seeking me at the play, did get a link to light me, and so light me to the 'Bear' (at Bridge-foot), where Bland, my waterman, waited for me with gold and other things he kept for me, to the value of £40 and more, which I had about me for fear of my pockets being cut. So by link-light through the Bridge, it being mighty dark, but still weather, and so home."

Yet again, Hogarth provides us with an illustration in his picture of "Southwark Fair" painted about 1733. The scene is before the old St. George's Church, which was rebuilt in 1735, looking southward to the wooded Surrey Hills. Here are the traditional hat and smock to be raced for; Lee and Harper's theatrical booth about to present "The Siege of Troy" (the sign shows the wooden horse), while a rival booth promises "The Fall of Bajazet." In the foreground is Figg, the prize-fighter mounted, dancing-dogs, *fantoccini*, &c. Behind are wax-works; a rope-dancer, perhaps Signora Violante, who distinguished herself in the reign of George the First, and on the right, sliding down a rope attached above to the battlemented tower of St. George-the-Martyr, is Cadman, the rope-flyer, who broke his neck at Shrewsbury in 1740.

On the right is the signboard of the "Royal Oak" the Minters' Tavern; while in the distance on the left is a "Half-Moon" signboard, but too far south for the present "Semilunar."

In the *Daily Post*, of Monday, September 10th, 1733, is an advertisement describing the performance of "Lee and Harper's Great Theatrical Booth, in Bowling-Green, behind the Marshalsea," and a printed book exists with the title "Jephthah's Rash Vow, or the Virgin's Sacrifice, a book of the 'droll,' printed and sold by G. Lee in Bluemaid Alley, Southwark."

(To be continued.)

Pass List.

University of London.

M.D. Degree.

July, 1912.

Branch IV.—Midwifery and Diseases of Women.

Foster, H. B. | Maxted, G. B. S. (University Medal.)

Second Examination for M.B.—Part II.

July, 12th.

Edwards, C. H. | Purkiss, K. N.

Roberts, C. S. L.

Conjoint Examining Board.

First Examination. July, 1912.

Part I.—Chemistry. Part II.—Physics.

†Barlow, N. A. H.	Halstead, O.
Duff, K. M. K.	Le Couilliard, F. G.
*Duggan, H. C.	†Richards, G.

* Passed in Part I. only. † Passed in Part II. only.

Part IV.—Practical Pharmacy.

Bailey, E. R.	Mather, H.
Gibb, C. de W.	Patey, P. E. H.
Lewis, J. L. D.	Trounce, T. R.

Tooth, F.

Second Examination. July, 1912.

Anatomy and Physiology.

Anthony, A. L.	Pearson, M.
Horsley, L.	Victory, José.
Marston, A. D.	Westman, K. J. F.

Royal College of Surgeons of England.

25th July, 1912.

The Diploma of M.R.C.S. has been conferred on the following.

Clarke, K. B.	Miller, G. S.
Crosse, S. S.	Roberts, T. E.
Joly, J. M.	Scott, M.
Luna, V. A.	Soothill, V. F.
McDermott, B.	Warner, C.
Matthews, W.	Wilson, O. R. L.

LICENCE IN DENTAL SURGERY.

Preliminary Science Examination, July, 1912.

Part I.—Chemistry. Part II.—Physics.

Dee, G.

Royal College of Physicians of London.

The following having passed the necessary examination, has been admitted to membership.

Alfred C. Jordan, M.D. Cantab.

Births.

BOYCOTT.—On July 28th, at Banstead, to Dr. and Mrs. A. E. Boycott, a son.

Rickets.

A Paper read before the Physical Society by Mr. J. A. Ryle.

MR. CHAIRMAN AND GENTLEMEN,—Most morbid conditions present, in addition to points of general interest, one or two aspects which will more particularly repay study and investigation. Rickets is certainly no exception to this rule. For, although from pathological and clinical standpoints, employing these terms in their more limited sense, it may not, perhaps, appear to be a disease of very striking interest; yet, an extension of the domain of these two great fields of medical inquiry, and an introduction of ætiological and sociological considerations, will at once be seen to endow the condition with a vast amount of both scientific and human importance.

In fact, when we remember that the pathology of rickets is still quite inadequately investigated, and that much of immense value in regard to a feasible causative and chemical pathology remains to be elucidated; when we remember that it is a disease of infancy and childhood, that it is a disease with many and serious complications, but yet that it is an entirely preventable and, to a certain extent, a tractable disease; and when, finally, we remember that it is a disease for which bad social conditions and concomitant ignorance are almost completely responsible, are we not bound to agree that it is a condition worthy, at any rate, of considerably more attention than it is customary for it to receive?

An attempt is made in this paper to give a very brief account of every aspect of the disease, but to lay more particular stress upon those points which have already been suggested as deserving of a fuller recognition. The main divisions of the paper are as follows :—

1. History of the disease.
2. Ætiology.
3. Pathology.
4. Clinical aspects, including remarks on diagnosis, complications, and sequelæ.
5. Prevention and treatment.
6. Sociological considerations.

1. HISTORY.

The word Rickets is probably derived from the old English verb "wrickken," to twist awry, and not from the Norman word "riquete," as suggested by Trousseau. A quasi-classical synonym, invented by the discoverer of the disease, still persists in the word "Rhachitis," which owes its derivation partly to the similarity in sound to rickets, and partly to the Greek word ῥάχις, spine, presumably on the grounds that the dorsal spine is one of the first parts affected in the disease.

Glisson, more famous for his "capsule," was the first to recognise and to give a good description of the disease. It is probable that Rickets has existed in Europe from a very early date, but that it has become more prevalent with the advance of civilization. In spite of its European ubiquity, it received the name of "morbus Anglicus," or "the English disease." Whether rickets is steadily on the increase it is difficult to state definitely, but the increase in many of the predisposing factors, such as the concentration of the populace into the large cities, the growing inability of women to suckle their children, and the widening demand for women in the labour markets, would certainly lead to the adoption of such a view. Furthermore, rickets is now becoming common even in the younger countries of the world.

2. ÆTIOLOGY.

Rickets is essentially a disease of malnutrition. It is a general constitutional disease, and not, as has been supposed, a disease of the bones, although the bony evidences are often the most marked, and to this fact the distraction of the attention of inquirers from the constitutional state has been principally due. The earlier and greater prominence of osseous changes is probably due to the fact that, at the time when the disease usually develops, the bones are in the most active stage of their growth, and so tend to exhibit abnormalities to a more obvious extent than other tissues. A multitude of suggestions as to the causation of the disease has been put forward. Faulty diet holds the foremost place, special importance being held by many to attach to the consequent setting up of a gastro-intestinal catarrh and a general digestive derangement. The diarrhœa and vomiting of infants is held to be another causatory factor. Want of light and fresh air, deficient clothing, dirt, bad hygiene, syphilis, and an inherited tendency have all been included among the causes or contributory causes of the condition. The probability is that, in the majority of instances, several factors are concerned in the production of the disease, and that various associations of most of the above-mentioned factors, which will be severally considered below, as a rule, constitute the ætiology.

Climate has by no means a negligible influence, for although rickets is found in almost every quarter of the globe, it is certainly more common in the temperate zone, and especially in countries where cold, damp, and cloudy weather prevails. England, Germany, France, North America, and Italy all show a high rate of incidence. The seasons must also be taken into account. The dark, cold winter months, during which children are compelled to live indoors to a great extent, with an insufficiency of light and air and warmth, are partially responsible for a large number of cases. In regard to locality it is found

that the great cities, and especially the factory cities such as exist in the North of England, where most of the mothers are at work and babies are consequently brought up by hand, are most productive of the disease. Sex appears to exert no influence on the incidence of rickets.

Some observers say that there is an inherited tendency to the disease, but there is no satisfactory evidence in support of this view. Parental influences are, in all probability, limited to the transmission of weakly constitutional characteristics, or to some such factors as impaired intra-uterine nutrition, and certainly it is quite common for the children of entirely healthy parents to become ricketty. It has, however, been stated by Seigert that the severest types of rickets occur in breast-fed children who have a strong hereditary predisposition.

Parrot believed rickets to be a simple expression of congenital syphilis, but the accumulated evidence is so strongly against this as to render the theory obsolete. It is the exception rather than the rule for any of the usual signs of congenital syphilis, such as the skin eruptions, snuffles, linear scars, pegged teeth and keratitis to be present in ricketty children, and in many cases the history is absolutely above suspicion. Conversely, babies may show signs of congenital syphilis without the signs of rickets. A combination of the two conditions is, of course, possible, but, in the words of Cheadle, "syphilis modifies rickets; it does not create it." The chief difficulty seems to be centred around the question of craniotabes, a symptom which is common to both conditions. Barlow and Lees state that 47 per cent. of cases with cranio-tabes are syphilitic. It is found that in congenital syphilitic infants the cranio-tabes, as well as the general wasting, is apt to be more marked than in the simple ricketty cases. It has also been suggested that the enlargement of the liver, spleen, and lymphatics that occurs in rickets is due to syphilis. This is very doubtful. The possibility of rickets being an infective process has been supported by Mircoli, who, finding staphylococci and streptococci constantly present in the mouths of infants and the mammary ducts of nursing women, has suggested that in alimentary disturbances these micrococci become nocuous, and that the parts of greatest functional activity, namely, the nervous system and the epiphyseal ends of bones are attacked. He looks upon the osseous changes as a chronic osteo-myelitis. Experimentally he has succeeded in producing hypertrophy of the epiphyses in rabbits a week old, by the injection of small quantities of staphylococci.

Bad hygiene is certainly largely concerned, as it is in the large cities, and especially their poorer districts, that rickets is most prevalent; while in sunny climates it is a comparatively rare disorder. The want of sunlight appears especially to affect children of southern races. Even the breast-fed babies of Neapolitan parents in the great cities of America are frequently afflicted. It should, however, be remembered that these social and hygienic factors are influential merely, and not essential for the causation of the disease, since children, even under the best circumstances, may develop rickets, while vast numbers remain immune in spite of the worst environmental conditions.

Disorders of digestion appear to play some part in the production of the disease, flatulence, diarrhœa, and vomiting, and the passage of offensive stools often being observed to precede the distinctive signs. It might, however, reasonably be argued that these were either, on the one hand, early symptoms of the disease itself, or, on the other, merely the result of the same nocuous feeding and hygiene as were in the process of giving rise to the rickets.

Parental alcoholism has been suggested as another predisposing factor, but seeing that it is, as a rule, merely the expression of poverty and squalor, and, having regard for the recent statistical work of Karl Pearson, we cannot lay much stress upon the theory. Professor Bunge maintains that parental alcoholism produces a failure in the lactatory abilities of women. He declares that 78 per cent. of women showing deficient lactation have alcoholism in one or both parents as the cause. If this view be reliable, we might say that grandparental alcoholism does assist in the production of ricketty infants. Whatever views be held in regard to the relative importance of the above-mentioned factors, it is quite indisputable that faulty diet is in all cases the most potent and, in some cases, the only cause of rickets. Children in the very best of surroundings become ricketty from wrong feeding, and are cured by anti-ricketty diet "as certainly as scurvy is cured by anti-scorbutic diet." The fault is more frequently in the quality of the food than in the quantity, though the regulation of the latter is undoubtedly a question of great importance, especially in very early life.

A child may, however, be nearly starved, but not become ricketty, while another may be plump and overfed, but present all the evidences of rickets. Children who are obtaining the ideal food of infancy, that is to say, breast-fed children, scarcely ever become ricketty. It is said that they do become so occasionally if for one reason or another the mother's milk is poor, and there is certainly some evidence to show that children who are kept too long at the breast do, in some instances, become afflicted. It is obviously, however, extremely difficult to obtain accurate histories. The mother may honestly say that the child is still at the breast while omitting to relate whether it is being entirely breast-fed, or whether the feeding is being artificially supplemented. Having due regard for this and for the more positive evidence for the contrary argument, we may declare with some confidence that in England, at any rate,

rickets practically never occurs in wholly breast-fed babies. It is stated that in Japan, where children are given much fish oil and are kept at the breast for as much as five years, rickets is almost unknown.

An analysis made from the medical ward reports of this hospital relating to 68 cases of ricketty children admitted during a period of 10 years, and containing notes in regard to feeding, gives the following results:—

25 per cent. are reported as having been artificially fed.

25 per cent. were breast-fed for a period of three months or less.

11·8 per cent. were breast-fed for a period greater than three months, but not exceeding six months.

7·3 per cent. were breast-fed for a period greater than six months, but not exceeding nine months.

19·1 per cent. were breast-fed for a period greater than nine months, but not exceeding twelve months.

7·3 per cent. were breast-fed for a period greater than twelve months, but not exceeding fifteen months.

4·4 per cent. were breast-fed for a period greater than fifteen months.

Thus, it will be seen that 88·2 per cent. of all the cases were put on to an artificial diet within the first twelve months, while 50 per cent. were put on to an artificial diet during the first three months. A percentage of 4·4 were breast-fed for a period exceeding fifteen months. One case was reported as having been fed in accordance with the Guy's slip relating to the feeding of infants.

These figures compare closely with the results reported in Goodhart and Still's Diseases of Children, where it is stated that 92 per cent. of the cases taken had been given farinaceous food before the age of twelve months. Experimental evidence shows exactly similar results. Bear cubs fed on rice, biscuits, and raw meat died of acute rickets. Monkeys not allowed their mother's milk, but fed on a vegetarian diet, became ricketty, and lion cubs which were weaned early showed unmistakable signs and symptoms of the disease.

The average age incidence of rickets can be only roughly gauged, as ricketty children are not, as a rule, brought to see a doctor except for complications, or at a time when the disease is already advanced. A condition known as "fœtal rickets" is mentioned in the literature, but probably the diagnosis of osteogenesis imperfecta, or achondroplasia, would account for all such cases. Rickets is rare in the first few months of life. Its occurrence seems to be most frequent after the eighteenth month, and for a period extending up to 2½ years. Of 157 cases of rickets, almost all of which were admitted for complications, occurring among the medical ward reports of this hospital, during the ten years ending December, 1910.

10 (first six months)—

1	case	was noted in the	1st month of life.
1	"	"	2nd "
0	"	"	3rd "
3	cases	were "	4th "
2	"	"	5th "
3	"	"	6th "

21 (second six months)—

3	cases	were noted in the	7th month of life.
2	"	"	8th "
4	"	"	9th "
5	"	"	10th "
3	"	"	11th "
4	"	"	12th "

29 (ensuing 9 months)—

4	cases	were noted in the	13th month of life.
4	"	"	14th "
1	"	"	15th "
8	"	"	16th "
4	"	"	17th "
8	"	"	18th–21st months of life.

Next six months—

40	cases	were noted in the	21st–27th months of life.
13	"	"	27th–33rd "
20	"	"	33rd–39th "
4	"	"	39th–45th "
8	"	"	45th–51st "
2	"	"	51st–57th "
4	"	"	57th–63rd "

Six cases were noted over five years of age. Thus, although the actual onset of the rickets must have been some months earlier in every case, it will be seen that about 50 per cent. of the whole occurred between the ages of eighteen months and 3¼ years. There is a condition known as "late rickets" which may occur as late as the eighth or twelfth year and which differs clinically from ordinary rickets only in its even greater tendency to affection of the long bones.

3. PATHOLOGY.

The question that must be asked first in considering the effects of deleterious diets is, whether these are due to the absence of necessary ingredients or to the presence of harmful ones. It will be seen that the evidence points to the former as the correct answer. The first explanations put forward were to the effect that, as the bones were soft and deficient in mineral matter, and especially in lime salts, a deficiency of these in the dietary was responsible for the disease.

Some observers produced curvature of the bones experimentally by withholding lime salts, but few were successful in producing changes that could be

described as typically ricketty. There is, moreover, ample evidence to show that this explanation is a most unsatisfactory one. In the first place, rickets is most common in districts where lime is plentifully present in the water, and children may even become ricketty on a diet which includes lime-water. In the second place, farinaceous foods on which ricketty children have, as a rule, been brought up, are rich in lime salts and also in phosphoric acid, and further, cow's milk is richer in these constituents than is human milk.

Others attributed the changes to an excess of lactic acid resulting from the imperfect digestion of farinaceous foods, the acid combining with the lime salts, or acting as an irritant to ossifying tissue, and stimulating it to grow at a time when the substances essential for its proper growth are not available. This latter view corresponds fairly well with the histological changes observed in ricketty bones, but in opposition to it are the facts (i.) that children suffering from rickets can be cured without discontinuing the farinaceous diet, but by the addition merely of the essential foodstuffs; and (ii.) that rickets can be produced in animals fed on a diet which is unproductive of lactic acid. Moreover, later observations seem to show that there is no excess of lactic acid in the case of children fed on rickets-producing diet.

So far, then, attempts at a satisfactory chemico-pathological explanation have not met with any marked success; and although, in another field, the increased vascularity of ossifying cartilage, together with the excessive cell proliferation of ricketty bone, has suggested to some a subacute or chronic inflammatory condition, whether resulting from a bacterial infection or from an indigenous production of toxines, we are bound to admit that the results of investigation are as yet scientifically insufficient.

Fortunately, however, this has not adversely affected treatment, for an examination of the diets which most predispose to rickets has definitely shown a deficiency in these of proteids and fats. Indeed, the only exceptions to the general run of cases in which a marked deficiency of proteid and fat is found to account for the onset of the disease are those in which alimentary disturbances are simultaneously present and the slowly digested but essential elements are consequently excreted instead of being properly assimilated.

Bland Sutton's investigations at the Zoo provide the most conclusive evidence in regard to the essential nature of fats and proteids. It was found in the case of lion cubs, which were, as a rule, weaned early and put on to a diet of old horse with bones too resistant for their infantile teeth to crack, that every litter, with the exception of one which was breast-fed for a longer period, became the victim of typical rickets, with a fatal result in every instance. Bland Sutton ordered them, in addition to the customary meat, milk, cod-liver oil, and pounded bones. No other change was made in the régime, but from the moment of that change, rickets entirely disappeared, and the animals invariably grew up healthy and strong.

By these and similar means and by observations on treatment in the case of ricketty infants it has been proved that the important constituents of a diet, whose purpose is to avert or to cure rickets, are fat, proteid (and more especially casein), lactose, and bone salts. Fat is essential for the life and growth of young mammals, but fat formed from carbohydrates cannot, it seems, take the part structurally of animal fats.

The reason why the diarrhœa and vomiting of infants may become the precursor of rickets is doubtless because the fats taken in the food in these cases escapes emulsification, and consequently also absorption.

We have, therefore, at present a causative pathology that is very incomplete. We know that fat and proteid are physiological necessities and that their withdrawal creates a pathological condition, but the chemical why and wherefore are as yet undemonstrated, and rickets, together with other disorders of metabolism and the normal process itself, await a fuller explanation. In turning to a consideration of the results of these imperfectly understood processes, it may be well to deal first with those changes which are the most apparent.

The description that is generally adopted in regard to the osseous changes is to the effect that the bones exhibit extensive preparation for ossification and an incomplete and imperfect performance of the process. Delay, atrophy, and hyperplasia are the three great characteristics of ricketty bone development. In the cranial bones the chief features which strike the observer are (1) the broad, square, projecting frontal region; (2) the flat top of the cranium, giving the head a square or oblong appearance; (3) the marked parietal and occipital protuberances; (4) the apparent large size of the head in proportion to the face; (5) the long and narrow upper jaw; (6) an occasional want of cranial symmetry; (7) the patency and large size of the anterior fontanelle and the delayed closure of the suture; (8) the late eruption of the teeth, which are also fragile, deficient in enamel, and extremely liable to caries.

The flat bones of the skull remain membranous at their margins, while bossy eminences are formed at their centres, particularly in the case of the frontal, parietal, and occipital bones, and occasionally even of the temporal bones.

Delay is evidenced in the closure of the sutures; atrophy in the rarefaction that takes place in the inner table; hyperplasia in the development of bosses

from the outer table, these last consisting of a red, highly vascular, spongy material which usually becomes organised, but may absorb.

Marked alterations take place in the bony wall of the thorax, the whole conformation of which is modified in a typical and fairly constant manner. In the words of Sir William Jenner, "The back is flattened. The ribs are bent at an acute angle where the dorsal and lateral regions unite. At that part the lateral diameter of the thorax is the greatest. From it the ribs pass forwards and inwards to the point where they unite with their cartilages. On that line the lateral diameter of the thorax is least, the cartilages curving outwards before turning in to unite themselves to the sternum. The sternum is thrown forwards and the antero-posterior diameter of the thorax is abnormally great." One of the most characteristic changes is a depression, known as Harrison's sulcus, running transversely from the lower end of the sternum across the chest on each side, and corresponding to the line of attachment of the diaphragm. The determining causes of these changes in the shape of the thorax are (1) atmospheric pressure; (2) the traction of the diaphragm and other muscles of respiration, both acting upon bones already softened by the general disease.

The projection of the sternum is rounded, and constitutes what is known as "pigeon-breast." The so-called "ricketty rosary," a series of nodular enlargements at the growing ends of the ribs, at their junction with the cartilages, is one of the earliest bony changes in rickets. The beading is most prominent in the lower rib, and is more marked inside the thorax than externally. The clavicle is not infrequently thickened and shows an accentuation of its curve. Even the scapula is sometimes curved.

The spine is variably rounded as the result of the relaxation of its ligaments and the general muscular flaccidity. The deformities of the pelvis may be very marked. The flat bones are irregularly thickened. The upper basin of the pelvis is usually enlarged laterally as the result of the pressure of the abdominal viscera, together with the downward pressure through the spine and the upward pressure through the femora. The lower part of the pelvis is, from the same causes, narrowed, and there is a forward tendency of the sacrum which diminishes the antero-posterior diameter. The long bones, particularly the radius and ulna, show marked thickening of their lower extremities, involving both the epiphyses and the junction of these with the shafts. The tibiæ show similar changes, as also may, in varying degrees, the fibulæ and femora. The upper ends of the bones are to a less extent and less constantly affected. Curvatures of the long bones occur as soon as muscular traction is exerted or pressure put upon them. The tibiæ are the most frequently and most markedly affected as the results of the assumption of the erect attitude and attempts at walking, while the bones of the forearm often show bending, even before the child crawls, as the result of their use as supports in the sitting posture, which is rendered difficult by the laxity of the spinal ligaments. The general tendency is for these deformities to become less apparent with advancing years. The beading of the ribs is not usually recognisable in adults, and the enlargements of the extremities of the long bones undergo more or less complete involution. Contraction of the pelvis is, however, apt to remain and to become a serious source of difficulty and danger in the case of parturient women.

Histological examination reveals a modification of the normal processes of ossification, characterised by an excessive cell formation on the part of the cartilage and the proliferating layer of the peritoneum. The proliferating zone of active cartilage at the epiphyseal ends of the long bones is hyperactive, the cells being increased in number and crowded together, the bone being irregularly formed instead of by a process of orderly advance. Furthermore, calcification is imperfect. Vascularity is also greatly increased, vessels invading the cartilage from the periosteum, in some cases to such an extent as to present the appearance of blood lacumæ or hæmorrhages. The periosteum strips easily. The columnar zone where the cartilage cells are preparing for the evolution of the medullary space is abnormally shallow. The spaces themselves are irregular, and some advance obliquely into the shaft, while bone formation takes place not only around, but also above and below the spaces. Even the formed bone undergoes changes. Vessels enlarge and new ones are formed, which press upon and destroy the septa between the medullary spaces, rendering the bones brittle and very liable to fracture. As the septa are destroyed, new bone deficient in lime salts is created. Ricketty bone is shown to contain 32—52 per cent. of lime salts, as against the 63—65 per cent. of normal bone.

As the active process subsides (as it will do in time, even without treatment), the vascularity of the bone and the spongy tissue becomes condensed. The new bone is rich in lime salts. The junction of the epiphyses may be premature.

The ligaments, although exhibiting no structural change, are extremely weak and lax, and it is for this reason that such conditions as flat-foot, knock-knee, and spinal curvatures tend to result. The muscles show a blurred and indistinct striation, and are so enfeebled that the child may be quite incapable of assuming the erect attitude or even of raising the head.

The skin constantly shows a slight and sometimes an extreme pallor. In milder cases there is frequently an excess of subcutaneous fat. Trousseau

draws particular attention to the dilatation of the subcutaneous veins, especially on the head. Profuse sweating is an almost constant symptom, and is especially marked on the scalp. Whether it is due to a nerve condition or is associated with a toxæmia is uncertain. The only actual skin lesions observed are such as result from excessive activity on the part of the sweat glands.

The mucous membranes are particularly prone to catarrh, a phenomenon which partially explains the frequency of such conditions as laryngitis, bronchitis, gastritis, and enteritis in ricketty subjects.

The lungs suffer chiefly mechanically, as the result of the combined efforts of atmospheric pressure and diaphragmatic traction to limit the excursion of the chest walls. Tracks of collapsed lung are found under the pressure points, and compensatory emphysema under the sternum.

The heart suffers only with the general malnutrition. There is usually a friction patch on the pericardium over the left ventricle corresponding to the bead on the fifth rib, the relative positions of heart and chest wall being sufficiently altered in rickets to allow of attrition at this point (Jenner).

The liver is usually normal in size, though the lower margin can, as a rule, be felt, on account of the downward displacement of the whole organ due to the narrowing of the chest. Occasionally, however, it may show a hyperplasia, and is hard owing to a diffuse fibrosis with a slight increase in its cellular elements. This hyperplasia probably results from a chronic hyperæmia consequent on the obstruction to circulation through the lungs.

The spleen may show a similar hyperplasia. If the enlargement is very great, congenital syphilis may be found to account for it.

There is a tendency to enlargement of all lymphatic glands in rickets, and the thymus is also frequently abnormally large.

Although backwardness and diminished intellectual capacity are often associated with rickets, the brain never shows any visible abnormalities. There is a zonular cataract associated with the disease.

Opinions differ in regard to the state of the blood in rickets. One set of observers says that there is a simple anæmia, the red cells being normal in number or slightly diminished, while the hæmoglobin shows a percentage of 75 or under. Others maintain: (1) That in active uncomplicated rickets anæmia is not the rule, but is to be regarded as exceptional, and due to adventitious causes; (2) That, on the contrary, in rickets the red cells and hæmoglobin are in excess of normal; (3) That the red cells vary in size more than in normal individuals; (4) That there is little change in the leucocytes (Findlay).

The urine in rickets shows no peculiarities, but it is stated by Trousseau to be abnormally copious.

(To be continued.)

REFERENCES.

Clifford Allbutt—System of Medicine.
Osler—Principles and Practice of Medicine.
Goodhart and Still—Diseases of Children.
Jenner—Lectures on Rickets and other Diseases.
Hutchisons—Lectures on Diseases of Children.
Trousseau—Clinique Médicale.
Hewlett—Pathology.
Bowlby—Surgical Pathology.
Findlay—The State of the Blood in Rickets, Brit. Med. Journ., 1909, vol. i., 1173—1177.
Carlyll—Thymus Gland and Status Lymphaticus, Guy's Hos. Rep.

Cricket.

GUY'S v. CROYDON MENTAL HOSPITAL.

Played at Warlingham on July 13th. Guy's won by 245 runs. Andrew bowled remarkably well, and took 6 wickets for 16 runs. Hancock and Rook played good cricket for their runs.

CROYDON MENTAL HOSPITAL.

E. Dalton, b Andrew	5
E. F. Street, b Andrew	2
C. B. Tomblin, c Hancock, b Harris	4
E. H. Charles, b Andrew	3
H. Howard, b Andrew	6
Dr. Hill, b Andrew	0
C. Bayley, b Harris	1
F. Hannington, b Andrew	1
A. Yates, c Hancock, b Harris	6
H. Jordon, run out	4
G. Williams, not out	1
Extras	3
Total	36

GUY'S.

K. J. T. Keer, b Bayley	21
A. B. Bond, lbw, b Charles	18
A. C. Hancock, b Dalton	65
F. C. Hunôt, run out	31
H. C. Rook, lbw, b Dalton	57
—. Harris, b Charles	30
R. S. Kennedy, c Bayley, b Dalton	9
G. W. M. Andrew, b Dalton	35
J. T. T. Forbes, c Tomlin, b Bayley	8
A. H. Harkness, not out	1
Extras	6
Total	281

GUY'S v. MIDDLESEX.

(FINAL OF INTER-HOSPITAL CUP).

Played at Chiswick Park on July 21st, 22nd, and 23rd. Guy's won by 130 runs. In the first innings Bond batted well for Guy's, his innings of 94 being the best knock of the season. In the second innings Vincent-Brown scored a good 49.

GUY'S.—1st Innings.

A. B. Bond, c Lawrance, b Eggar	94
K. J. T. Keer, b Whyboro	32
A. C. Hancock, c Lawrance, b Whyboro	8
R. Montgomery, c Symons, b Eggar	9
C. Vincent-Brown, lbw, b Montgomery	25
A. F. Rook, c Lawrance, b Eggar	0
F. C. Hunôt, not out	27
G. W. M. Andrew, c Blake, b Eggar	0
B. F. Sampson, b Montgomery	5
J. Biddle, b Eggar	0
A. H. Harkness, b Montgomery	15
Extras	14
Total	257

GUY'S.—2nd Innings.

A. B. Bond, c & b Montgomery	2
K. J. T. Keer, c Lawrance, b Eggar	5
A. C. Hancock, c Lawrance, b Montgomery	2
R. Montgomery, c Wearne, b Whyboro	24
C. Vincent-Brown, b Whyboro	49
A. F. Rook, c Eggar, b Montgomery	27
F. C. Hunôt, c Eggar, b Montgomery	13
G. W. M. Andrew, c Lawrance, b Tuke	11
B. F. Sampson, st Symons, b Tuke	5
F. J. Biddle, c & b Eggar	7
A. H. Harkness, not out	1
Extras	9
Total	155

MIDDLESEX.—1st Innings.

G. Lawrance, st Bond, b Hunôt	21
A. S. Whitworth, c Hunôt, b Andrew	24
R. Blake, run out	23
F. W. Symons, c Montgomery, b Harkness	0
P. J. Montgomery, c Montgomery, b Harkness	8
H. Wearne, c Biddle, b Harkness	0
R. Whyboro, c Andrew, b Harkness	8
T. W. Melhuish, b Biddle	3
W. H. Eggar, c Montgomery, b Hunôt	9
B. M. Tuke, not out	11
L. G. Blackmore, c Harkness, b Andrew	0
Extras	8
Total	115

MIDDLESEX.—2nd Innings.

G. Lawrance, b Montgomery	16
A. S. Whitworth, c Biddle, b Harkness	7
R. Blake, hit wicket, b Hunôt	78
F. W. Symons, b Biddle	6
P. J. Montgomery, b Andrew	14
H. Wearne, c Hunôt, b Montgomery	15
R. Whyboro, c Hancock, b Rook	9
F. W. Melhuish, not out	8
W. H. Eggar, c Bond, b Biddle	3
B. M. Tuke, c Hancock, b Harkness	4
L. G. Blackmore, c Keer, b Harkness	0
Extras	7
Total	167

PAST v. PRESENT.

Played at Honor Oak Park on July 6th. The Past batted first, and scored 300 for 9 wickets. Morris batted splendidly, and had bad luck in not reaching his century. His innings included a six and twelve fours. The Present scored 196 for 4 wickets when stumps were drawn, the game thus ending in a draw.

PAST.

T. Morris, c Hunôt, b Biddle	98
J. S. Bookless, b Biddle	50
H. Chapple, c Keer, b Andrew	40
S. C. Bowle, c Hancock, b Biddle	0
H. P. Wyatt, b Hunôt	22
J. G. Saner, b Hunôt	7
F. D. Saner, st Harkness, b Hunôt	5
L. Bromley, b Andrew	21
C. H. Fagge, not out	24
F. Townrow, c Hancock, b Andrew	0
A. Brookhouse, not out	2
Extras	31
Total (for 9 wickets)	300

PRESENT.

K. J. T. Keer, lbw, b Bookless	17
A. C. Hancock, b Wyatt	37
C. Vincent-Brown, b Wyatt	6
R. Montgomery, not out	55
F. C. Hunôt, c Wyatt, b Morris	26
A. F. Rook, not out	30
Extras	25
Total (for 4 wickets)	196

R. S. Kennedy, B. F. Sampson, G. W. M. Andrew, F. J. Biddle, and A. H. Harkness did not bat.

Eds.—E. G. S. & A. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 630.] AUGUST 17, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	329–331
Change of Address	331
London Bridge and the Borough in the Eighteenth Century (*continued*)	332–334
Appointments	334
Correspondence	334
Vertigo. Clinical Lecture by Mr. Mollison	335–339
The Landon Out-Patient Tea. Christmas, 1911	339
Rickets.—A Paper read before the Physical Society by Mr. J. A. Ryle (*continued*) ...	340–343
A Case of Hairpin in Rectum...	343
A Cry Answered...	343–344

Passim.

SOCIETY has awakened to the fact that it is itself responsible for many of the outstanding defects in its health, and that civilization, so-called, is to a great extent to blame for these defects. Society is, moreover, in the process of awakening to the still more essential fact that it has now accumulated sufficient social and scientific experience to allow of a reasonable attempt to institute a system or systems of national hygiene for the purpose of dealing with these defects. Even setting aside, for the moment, the Insurance Act and all its issues, we have in the past few weeks had ample evidence of this awakening, at various important summer congresses, in Parliament, and in the columns of the daily press. The presidential address at the Liverpool meeting of the British Medical Association, the International Eugenics Congress, and the proposed institution of a new board of control and new methods for dealing with the feeble-minded have all been productive of suggestions and discussion which, in many respects, merit even more attention and consideration than do the more obtrusive questions relating to national insurance. The reason for this is not far to seek. In each of the above instances the points considered have been fundamental and such as relate to the avoidance and prevention of disease, whereas the Insurance Act can never be regarded otherwise than as a palliative measure, concerned rather with treatment than prevention.

SIR JAMES BARR, at Liverpool, laid emphasis upon a point which we—the state and the medical profession—have for some time realized to our discomfort, and the general effect of which is that our efforts in the past have been almost as effective in the encouragement as in the elimination of disease. By our workhouses and infirmaries, by our prison system, and even by our hospitals—that is to say, by a continual fostering of the mentally and physically unfit unaccompanied by any kind of check upon their productiveness—we have assisted in the transmission and propagation of disease. In the words of the Liverpool address, "a selective death-rate which was, and is, nature's method of eliminating the unfit has been at least partially suspended by our efforts." Our mistakes of the past may teach us what to avoid in the future, but, even with this as

consolation, the problems before us are filled with much complexity. In the past we have legislated, and in the present we are legislating, for the public sickness; in the future we must legislate rather for the public health. So far so good, but still the question of means and methods remains.

HEREDITY and environment are the two great enemies and the two great allies of social progress and national hygiene, and it is only in so far as we are able to improve environment and call heredity to our aid that we become capable of making noteworthy advances. The programme of the eugenists is at present somewhat vague. Their preliminary investigations, their statistics, and much of their theorizing are undoubtedly valuable, but with the more ruthless proposals of the positive eugenists thrust into the background, as much on grounds of impracticability and actual scientific contra-indication as on the score of sentiment, we are left without any definite scheme of practice. Little is to be expected from modern governments in the nature of economic changes sufficiently extensive to improve appreciably environmental conditions, and their attempts at health legislation are, one must admit, characterized by a lack of technical insight and an apparent complete disregard for the value of appeal to sources of scientific information. It is, furthermore, doubtful how far it will prove possible for us to control breeding by legislative methods, for the liberty of the individual and the respect due to him rightly demand far greater consideration than they did in times past. Even the justification for segregation or sterilization of the mentally unfit is a question for debate, and in this connection we shall watch with interest the reception accorded to the present proposals before Parliament relating to the control of the feeble-minded.

APART then from the work of legislators, whence are we to expect assistance? Sir James Barr urges that we should "raise the banner of health with all the fervour of a new religion," and the eugenists do not appear to go a great deal further than this. If we are to draw conclusions from the general attitude of modernity to new religions our hopes of this resource must not be over-sanguine, but it is by no means improbable that a dissemination of our knowledge of the principles of hygiene and of heredity, and a kindling of some spark of hygienic conscience in the public breast, may achieve more valuable results than would be at first predicted. It is, however, in any case, entirely fitting and feasible that the medical profession, with or without the aid of governments, should make itself responsible for the foundation of an efficient Public Health Service (already the Sociological section of the British Medical Association has given its attention to this most urgent question), and when we speak of Public Health let it be fully realized that the term does not merely imply drains and sanatoria. These are not the only weapons of the army whose ultimate aim it should be to render tuberculosis and syphilis as much *hors de combat* as past efforts have rendered typhus and small-pox.

WHATEVER course be adopted in the near future, we cannot but endorse the sentiments expressed by Sir Clifford Allbutt in his humane and authoritative address, delivered recently at the Congress of the Royal Institute of Public Health in Berlin. His was an appeal for the employment of sympathetic as opposed to dictatorial methods in all questions relating to the regulation of the life of the social organism. There is certainly too great a tendency to accusation and recrimination in matters affecting both public and private economies at the present day. Individuals and groups alike are

all too apt to forget to what an enormous extent we are the mere victims of circumstance, and to disregard their own responsibilities while declaiming against the irresponsibilities of others. Toleration in itself may be regarded as weakness, but as a cementing substance it is far more potent than repression or abuse. The cultivation of sympathies between individuals, between classes, and between nations, will do as much to ensure the health of that interesting organism, humanity, as the mutual respect and understanding existing between the various members and organs do in maintaining the health of the human body.

We have been asked to announce that His Majesty the King has been graciously pleased to grant to the British Medical Benevolent Fund the title of Royal, so that it will henceforth be known as the Royal Medical Benevolent Fund. Few charities, probably, could be more deserving of such a distinction. By its excellence of purpose and length of standing it has undoubtedly merited both the immediate honour conferred upon it and the ultimate benefits which are likely to accrue from its new and still more honourable title.

Once again, thanks to the magnetism of Mr. Lane, Guy's has been honoured by a visit of distinguished surgeons from over seas. Dr. Murphy, from Chicago, of "button" fame, Dr. Charles A. Power, President of the American Surgical Society, and others, spent several hours in the Hospital during the course of last week. They were present at operations by Mr. Lane for ileo-colostomy and colectomy, witnessed various bone-plating operations, and were also enabled to see in the wards some recent and late results of short-circuiting. From the general air of satisfaction which they displayed, we should expect that they will go "out West" again quite willing to admit that England at her best, as typified by Guy's, is still capable of keeping pace with the States in the field of surgery.

We are very glad to publish in this issue an appeal for the Golf Club of the Hospital, which, as our correspondent puts it, certainly seems to have sunk into oblivion. That this is so seems very regrettable. We know of quite a number of good golfers, and many more who might become so. Apart from the interest of matches and competitions, there can be little doubt that Golf is the most useful game the doctor can play. Men all the world over show a preference for the professional man with some accomplishment outside his profession, and by the doctor, above all, such opportunities as golf affords for maintaining his own health and mixing with his fellow men should surely be seized. We should be encroaching on the province of others were we to offer suggestions as to the immediate means of stimulating interest in the game, but we cannot help feeling that it is the duty of some keen golfer to make himself responsible for finding out those who play golf and those who play it well, and for the arrangement of occasional matches and competitions. We commend the matter to the golfers of the Hospital in general and to the captain and committee of the club in particular.

J. A. R.

Change of Address.

Dr. A. W. Ewing from Froghole, Edenbridge, Kent, to The Moat, Puckeridge, Herts.

S. W. Daw, M.B., B.S., F.R.C.S., from the General Infirmary, Leeds, to 29, Park Square, Leeds.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 321.*)

V.

FARTHEST SOUTH.

SHALLOW: "*O, Sir John, do you remember since we lay all night in the windmill in* ST. GEORGE'S FIELDS?"

. . . . . .

FALSTAFF: "*We have heard the chimes at midnight, Master Shallow!*"

K. HENRY IV., pt. 1, III., ii.

Shakespeare doubtless knew his South London from his association with the theatres on Bankside, and possibly with the summer theatre also, which existed in his day at Newington Butts. Many, indeed, have been tempted to find in Antonio's advice to Sebastian (Twelfth Night, III., iii.),

> "In the south suburbs, at the Elephant
> Is best to lodge,"

an allusion to the Elephant and Castle tavern; although there is no evidence whatever that is existed earlier than the eighteenth century. It was then a low-built roadside inn with an outer gallery, and in all probability derived its name from the crest of the Cutlers' Company.

The Newington Butts are first mentioned by name in 1558. Here the Fishmongers' Company had their almhouses, consisting of three courts, a dining-hall, and a chapel, from 1618 until 1815, when they were removed to Wandsworth Common.

Not only down to Elizabethan times, but for more than a hundred and fifty years later, St. George's Fields were open country south of St. George's Church, except for a few straggling houses which followed the line of the sole highway which then traversed the fields, the southward continuation of the Borough High Street. Newington Causeway was then a causeway in literal truth, a thoroughfare built up well above the surrounding swampy fields which supported few habitations other than an occasional windmill, such as that which afforded a night's lodging for the fat knight and the "man made after supper of a cheese-paring," his companion.

Only after the completion of Blackfriars Bridge in 1769 were other roadways made: Blackfriars Road and its tributaries, the Lambeth, London, Borough, and Westminster Bridge Roads were built up from the marshland, and Stamford Street and New Cut were carried through the more developed land nearer the river. Southwark Bridge Road came much later, with the building of Southwark Bridge in 1811.

In earlier times Paris Gardens and Pye Gardens on Bankside had been the resorts of all London. In the eighteenth century they were replaced by a whole host of pleasure gardens further south in St. George's Fields and elsewhere: Vauxhall, Cuper's Gardens (on the land now crossed by Waterloo Bridge Road), the Apollo, and the Flora Tea Gardens, the St. Helena Gardens, Rotherhithe, the Bermondsey Spa, and others. Finch's Grotto Gardens were established about 1760 where is now Southwark Bridge Road; the old Grotto House was burnt down in 1795, but rebuilt, and a stone inserted in the wall with the inscription:

> *Here Herbs did grow*
> *And Flowers sweet;*
> *But now 'tis called*
> *St. George's Street.*

These were not the Grotto Gardens that Mrs. Hardcastle, in Goldsmith's play, sighed for when the new small-pox treatment introduced by Lady Mary Wortley Montague ("*since Inoculation began, there is no such thing to be seen as a plain woman*") rendered the cultivation of a "Manner" doubly desirable. The "Grotto Gardens" of her aspirations were situated at Ebury Bridge, now Victoria Station, and passed under the nick-name of "Fanny's Whim."

One of the best known of these resorts was the "Dog and Duck" on the grounds now occupied by Bethlem Hospital. Here was discovered a medicinal spring which enjoyed a great reputation between 1744 and 1770. Dr. Johnson, writing to Mrs. Thrale in July, 1771, says, "You despise the Dog and Duck; things that are at hand are always slighted. I remember that Dr. Grevil of Gloucester sent for that water when his wife was in the same danger, but he lived near Malvern and you live near the Dog and Duck. Thus, in difficult cases we naturally trust most that we least know."

Other attractions of the place were a bowling-green and a swimming bath, the only one at that period, in South London; and the dubious sport of hunting duck with dogs. The gardens fell into disrepute, and were finally closed in 1799. The tavern sign was a low relief carving in stone, now inserted into the front wall of Bethlem; one portion represents a dog with a duck slung across its back, with the date 1776; the other contains the so-called Southwark Cross (in reality the Bridge House mark), *an annulet ensigned with a cross patée, interlaced with a saltire conjoined in base.*

St. George's Fields, in the latter half of the century, were the scene of two riotous assemblies: the "Wilkites" gathered here in 1768 to demand the release of their hero, John Wilkes, from the King's Bench prison; and twelve years later this was the first rallying point of the Gordon Rioters. *Apropos,* the "Dickens Centenary" article in the GAZETTE of February last omitted from its topographical list the residence of Barnaby Rudge and his mother, "in a by-street in Southwark."

The Obelisk, formerly in the centre of St. George's Circus, was erected to commemorate Brass Crosby, Esquire, Lord Mayor in 1771, who was confined in the Tower "for the conscientious discharge of his magisterial duties." In 1905 it was replaced by the present clock-tower, and is now to be seen at the north corner of the Bethlem grounds.

The Surrey Theatre in Blackfriars Road was first built by Charles Hughes and the nautical song writer, Charles Dibdin, in 1782. It was originally started as a circus, but after being burnt down in 1805, it was rebuilt as a playhouse; as the imitation of "hoarse Fitzgerald" in the "Rejected Addresses" tells us. "'Twas call'd the Circus then, but now the Surrey."

The Halfpenny Hatch mentioned in the same parody was a footpath which ran through Cuper's Gardens, occupying the land between St. John's Church and Christchurch, Blackfriars Road.

In 1791—1799 were built the Sessions House in Newington Causeway, and, behind it, close to Horsemonger Lane (now Union Road), the Surrey County Gaol, from plans suggested by John Howard, the prison reformer.

Near the Elephant and Castle stood the chapel built by the followers of Joanna Southcote, bearing on its exterior in huge letters "The House of God." Within were mural paintings by one of her disciples, named Carpenter, representing her strange dreams and visions; and a silver cradle for the New Messiah, to whom this crazy woman declared herself destined to give birth.

The Surrey Gardens Estate in Walworth, at one time the Surrey Zoological Gardens, was temporarily occupied by St. Thomas's Hospital after its removal from the Borough until the new buildings in Lambeth were completed.

The definition of our general title has hitherto proved so elastic that we may be permitted to stretch it still further to include a few notes on old Bethlem, although the hospital was not removed from "the melancholy of Moor-ditch" to its present situation until 1815. It was originally instituted as a priory of canons of the Order of the Star of Bethlehem, in the neighbourhood of Charing Cross, but subsequently transferred to Moorfields. In 1546 Henry VIII. presented it to the City, though not before he had tried, without success, to sell it. The priory buildings becoming delapidated, another hospital was built in 1675, a palatial structure with a frontage 580 feet in length. Above the main doorway was a pair of statues representing "Melancholy and Raving Madness," afterwards exhibited in the hall of the later hospital in St. George's Fields, and finally removed in 1888 to the Guildhall Museum, where they are to be seen to-day. They were the work of Caius Gabriel Cibber (1630—1700), a native of Flensburg, Holstein, the father of Colley Cibber, actor, playwright, and poet-laureate. The original of one of the figures is said to have been a gigantic porter in the service of Oliver Cromwell. The statues were repaired in 1820 by the younger Bacon, the son of the sculptor of Guy's monument in our chapel.

Regarding the treatment of the patients at this period, we may quote a few words from the officially-inspired statement from Robert Seymour's Survey of London, etc., 1733:—

"As to the Care and Cure of Patients, here is the greatest Provision made for them in any publick Charity in the World; each having a convenient Room where they are lock'd up at Night and in it a Place for a Bed; or, if they are so senseless as not fit to make Use of one, they are every Day provided with fresh and clean Straw. Those who are fit for it, at convenient hours, have Liberty to walk in the long Galleries which are large and spacious. In the Heat of the Weather, the Bathing Place, to cool and wash them in, is of great Service in curing their Lunacy and is easily made an Hot Bath for restoring the Limbs when numb'd, or cleaning and preserving them from Scurvy or other cutaneous Disorders.

"Several who have come into the Hospital with Loss of Limbs, and not able to go, have been recovered, and sent out perfectly well, as others have who have been to the greatest Degree over-run with the Scurvy, with Ulcers in their Mouths, with Hydropical Swellings in their Limbs, with Mortifications in their Toes, large Blotches over their Bodies and Variety of other Distempers and such as have been taken with the Small-pox."

Notwithstanding this glowing account, the condition of the patients was, in many respects, pitiable. Note the "convenient rooms" portrayed by Hogarth in his interior view of Bethlem which forms the eighth scene of The Rake's Progress: observe the shaven heads of the patients, and the shackles (you may see them in reality in Guildhall) upon their limbs: and, above all, notice the visitors who, down to 1770, were admitted at a charge of one penny a head to satisfy their vulgar curiosity; from this source alone the hospital derived above £400 per annum! Or, in imagination, restore the interior of

our own Clinical Wards to their former state, reconstruct an interior wall on either side between the supporting pillars, subdivide the space remaining by partitions erected between each of the windows, block up the latter, all but the semicircular section at the top, and you have the "convenient rooms" considered adequate to the treatment of mental cases in the eighteenth and part of the nineteenth centuries.

So late as 1814, says Timbs, speaking of old Bethlem in Moorfields, the rooms resembled dog-kennels. The female patients were chained by one arm or leg; they were clad in a blanket-gown, the feet alone left bare. and they lay on a bed of straw. The male patients were handcuffed and locked to the wall; chains were universally substituted for the strait-waistcoat.

One, Norris, stated to be refractory, was chained by a strong iron ring rivetted round the neck, his arms pinioned by an iron bar and his waist similarly secured, so that he could only advance twelve inches from the wall, the length of his chain. He was thus kept for more than twelve years; he read books of various kinds, the newspapers daily, and conversed with his visitors rationally.

His case led to a parliamentary inquiry in 1815, and brought about new methods of treatment for the insane; although the authorities in two years spent £660 of the hospital funds in resisting the change.

It comes as no surprise, to anyone who has studied the history of our founder, to discover, in the list of benefactions to Bethlem Hospital, this record—

1700. Thomas Guy, Esq..... £200 0 0

(To be continued.)

Appointments.

Dr. A. W. Ewing: Medical Officer and Public Vaccinator to the Ware Union and Bishop's Stortford Union; Medical Officer to St. Edmund's College, Ware; Visiting Surgeon to the German Colony, Libury Hall, Ware; Assistant Medical Inspector of Schools to the Hadham and Buntingford Districts.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette." Guy's Hospital, London, S.E.*

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

Golf Club.

SIR,—The Golfing Society, which started its career with so much enthusiasm on the part of the members of the Clubs' Union, seems to have sunk into oblivion.

The reason is that it is not known among the more recent men at the Hospital, and I, therefore, wish to bring to light its existence and point out some of the possibilities and the advantages which might be obtained if the Society were set on a proper footing and brought into touch with the junior men. It is these men who probably have the time and possess the keenness to ensure a successful working.

There must be many men among the entries of each year who are no mean performers on the golf links, and many besides who, given the opportunity, would be only too glad to take up the game.

It is a pity that such talent should be allowed to lie dormant, as far as the Hospital is concerned. Any member of the Clubs' Union is a member of the Golfing Society, and some person should be responsible for finding out which of the men play golf, or are willing to play.

Handicaps should be given according to the player's club handicap, or on the return of a certain number of cards. I feel sure that a well-equipped list of golfers would result, and, from this, competitions and matches could be arranged.

Facilities for play are, at present, given to members of the Society at certain courses near London. Foxgrove Club, at Beckenham, seems to be the one most made use of by Guy's men, but, with greater keenness shown, the hospitality of other clubs might be encouraged in this respect, and these clubs might further arrange matches with the Hospital, giving opportunities for play on a variety of courses about London.

An inter-hospital competition is held annually; a trophy, presented by Dr. Hale White, rests with Guy's this year, for the second time in the three years in which it has been played for. Golf in Guy's can be brought to the high standard of the other games if men will only come forward and show that keenness exists.

The annual general meeting of the Society is held in October, and it is hoped that a large number will come, so that a thoroughly representative committee may be elected.—Yours faithfully,

ROYAL AND ANCIENT.

Vertigo.

CLINICAL LECTURE BY Mr. MOLLISON.

Gentlemen,—Vertigo is an important symptom of many abnormal conditions of the ear, and I propose to consider it from an aural standpoint. But perhaps I may first put shortly before you the question of vertigo from a general point of view, not in any way as to cover the whole ground, but as an indication of the complexity of the problem.

Vertigo is, as it were, the pathology of equilibrium, or, at any rate, the sense of equilibrium. Equilibrium is maintained by a very complicated reflex mechanism centred to a large extent in the cerebellum and controlling the movements of most of the voluntary muscles. For a reflex action to occur certain well-known factors are essential, *afferent impulses* from special senses conducted to a *centre*, and *efferent impulses* emanating from that centre to *muscles* or *glands*. Now in the case of the reflex, or series of reflexes, that we class generally under the heading of equilibrium, there are many afferent impulses coming from different special senses. There is a vastly complicated centre—the cerebellum, a co-ordinating centre, and a further complicated mechanism for affecting various groups of muscles whose movements go to maintain equilibrium. These movements are quite unappreciated by the normal healthy adult, and when these movements do become affected vertigo results.

The cerebellum not only receives impulses and co-ordinates them, but is connected variously with other parts of the brain, especially with the basal ganglia, probably through the red nucleus, and with the subcortical area.

When one considers, even thus briefly, the mechanism of equilibrium, and bears in mind that it may be put out of gear if any part of that mechanism is damaged, the vast number of causes of vertigo or loss of equilibrium will be appreciated.

Let me suggest various brain affections—tumours, hæmorrhages, affections of the blood supply, anæmia, and arterio-sclerosis; also some reflex stimulations of the vagus, as in dyspepsia; this latter, perhaps, the most frequent cause of vertigo.

I am going to deal only with the afferent impulses of the reflex. We may distinguish three classes of afferent impulse from three different special senses.

1. The eye.
2. The muscle sense and joint sense, etc.
3. The labyrinth, or semicircular canals.

All three groups are necessary for complete equilibrium, and all work together.

Of the *first* I have nothing to say, except that it is common knowledge that withdrawal of the impulses derived from sight disturbs the sense of equilibrium.

The *second* will be left for the present, except to remind you that in diseases which destroy this sense equilibrium is so much disturbed that the patient has difficulty in standing and walking, and that if another group of impulses, viz., those from the eye, are excluded, he has greater difficulty still in maintaining equilibrium.

The disease where skin and muscle impulses are absent is tabes, and it is common knowledge that patients suffering from this disease have great difficulty in walking properly with the eyes closed; not only so, but they may suffer from attacks of vertigo. When these attacks of vertigo are combined with deafness the diagnosis between tabes and a condition called Menière's disease becomes difficult. The following case was typical:—

Two years ago a man of about 50 was sent to the Aural Out-Patient Department with the provisional diagnosis of Menière's disease because he exhibited the three cardinal symptoms of that disease, vertigo, deafness, and tinnitus. However, on investigation his vertigo did not come on suddenly and was worse at night, and his deafness was not a nerve deafness, but due to some middle ear catarrh, and, on further questioning, he said he had difficulty in walking: on examination he was found to have no tendo-Achillis jerks or knee-jerks, and the diagnosis of tabes was made.

The *third* group of impulses, those supplied by the semicircular canals, is the most important group, and the impulses received from them are of greater importance than those from the other two groups.

The impulses are originated by movements of the fluid in the canals and perhaps by changes in pressure in that fluid.

Partly from the inaccessibility of the canals, and partly because it is only in recent years that means have been discovered to study their functions and modes of action in man, our knowledge is still far from complete. At the same time it has long been recognised that the function of the canals in animals is that of maintaining equilibrium.

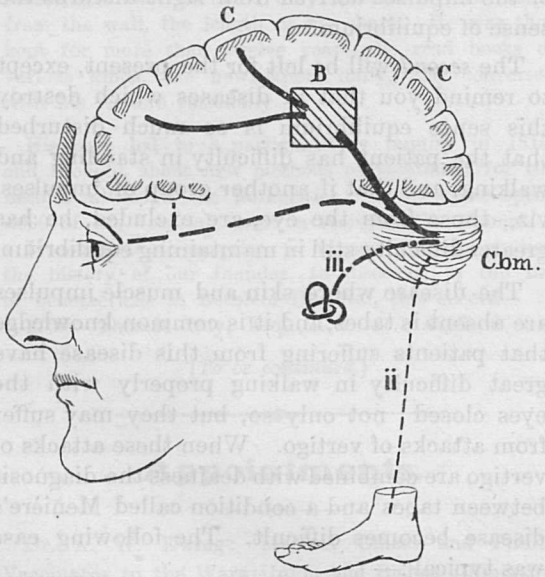


Diagram of the paths of afferent impulses to the cerebellum and the simplest connections of the cerebellum.

i. Impulses from eye.
ii. " " skin, joints, etc.
iii. " " semicircular canal *via* the vestibular portion of the eighth nerve.
Cbm. Cerebellum.
B. Basal ganglia.
C. Cerebrum.

The anatomy of the semicircular canals deserves study, and from this study it will be noticed that the three canals occupy the three planes of space at right angles to one another. This is well shown in this preparation of the temporal bone and in these excellent models from the museum. The three canals, the superior, the posterior, and the external, are bony, as we see them here, but in the recent state there are, lying in the bony canals, membranous tubes, much smaller in calibre and supported by strands of tissue so that they hang free in the lumen of the bony canal. The bony canals open into the bony vestibule and the membranous canals open into the saccule and utricle, two membranous sacs lying in the vestibule. The cochlea, bony and membranous, is continuous with vestibule and utricle respectively. At one end of each membranous canal is a thickening of the epithelial covering, the *ampulla*, and in this ampulla are some very delicate cells with hair-like processes. These cells are connected with the fibres of the vestibular part of the eighth nerve. Inside the membranous canals is a fluid, the endolymph, and outside, between them and the bony walls, is the perilymph.

It may be taken that, with the various movements of the body and head, currents, doubtless exceedingly slight, are set up in the endolymph, and these currents, impinging on the hair-like processes of the ampullary cells, give rise to impulses which pass, via the vestibular nerve, to the cerebellum.

Let us now consider how stimulation can be applied to the labyrinth, and the results obtained.

It is generally appreciated that if vertigo becomes excessive the patient falls down and vomits. It is obvious that one cannot stimulate the labyrinth to such an extent that these effects are produced. It has been noticed, however, that, when stimulation is applied, not only does the patient notice vertigo, but that the eye-balls exhibit movements, and these movements we call *nystagmus*. It is on the presence of nystagmus that we depend for our appreciation of the results of stimulation.

There are three methods of stimulating the labyrinth:—

1. *Rotation test.*—The patient is seated on a stool which can be rotated about a vertical axis. To investigate the right labyrinth the patient is rotated counter-clockwise, say ten complete turns. The stool is then stopped and the patient's eyes are examined. It will be found that they exhibit nystagmus, and this nystagmus is towards the left side and more noticeable when the eyes are directed to the left.

By letting the patient hold his head in different positions during the rotation different canals can be investigated.

The phenomena observed are spoken of as *post-rotatory*, because during rotation at a constant velocity no symptoms or signs are present; these only occur when the rotation ceases. The reason for this is that the fluid in the canals, which takes on the velocity imparted to the whole body during rotation, washes against the ampulla at one end of the canal when that velocity is suddenly destroyed; this motion of the fluid affects the hair cells and thus stimuli are carried to the vestibular nerve.

The objections to this test are: first, special apparatus is required; second, it can only be carried out if the patients are well enough; and, third, both labyrinths are affected together, and a fallacy arises. Thus, a patient in whom one labyrinth has been destroyed by operation will react to a slight extent when this labyrinth is tested, the nystagmus resulting from rotation really being produced by stimulation of the opposite and sound side.

2. *Caloric test.*—It has long been noticed that syringing the ears, especially with cold water, produces giddiness, but the credit of appreciating and applying this phenomenon to the study of the vestibule lies with the school in Vienna, and the name of Bàràny stands out pre-eminently in this work.

When the ear is syringed with water at a temperature either considerably above or below that of the body giddiness results. Cold water is always used, as hot is painful and apt to damage the tympanic membrane. After syringing with water at about 70° F. for about twenty seconds the patient feels giddy, and nystagmus is observed in a direction away from the side investigated (contra-lateral nystagmus); this lasts for a variable time, usually about two minutes. The advantages of this method lie in its simplicity and the fact that it can be applied to each ear separately and with the patient lying in bed.

3. *Galvanic test.*—It is found that, if a galvanic current be passed through the ear, giddiness and nystagmus are produced. The test is carried out as follows: The anode of a galvanic current is held on the skin just in front of the ear and the kathode put at the back of the neck, or in the hand of the same side; in the circuit is a resistance and a milleampère metre. The current is slowly increased until the patient complains of giddiness or nystagmus (contra-lateral) is observed, and the metre read. With an anode one inch square and a kathode two inches square the amount of current usually required to produce vertigo is four to six milleampères.

Let us consider the value of these various tests and their results. If by these tests nystagmus and giddiness are produced, it can be said with confidence that the labyrinth is functional, and if no reaction occurs—no nystagmus, and no vertigo—then it can be said that that labyrinth is no longer functional. It is more than probable that there must be some condition between *function* and *no function*, and it is suggested sometimes that the difference in the amount of reaction (as measured, for instance, by the length of time nystagmus takes to appear after the beginning of the stimulus) gives a measure of the amount of function present in that labyrinth. Unfortunately, this is not borne out practically; the most that can be said with certainty is that a particular labyrinth is functional or functionless, and the practical application of these tests is of most use when this point has to be decided, as it often has, in cases of suppurative otitis media.

Clinically, cases of vertigo associated with aural disease are found in various conditions of the internal, middle, and external ear. Vertigo is certainly produced by pressure upon the

stapes. This is strikingly shown when dressing cases on which a radical mastoid operation has been performed. If in the course of wiping out the cavity the stapes be pressed upon, the patient suddenly complains of giddiness and tends even to fall. Pressure may be brought to bear on the stapes by pressure on the membrane from outside, as, for example, by *wax*. In a certain proportion of cases in which accumulations of wax are found in the meatus giddiness is complained of, and on removal of the wax all symptoms disappear.

Toynbee, in his book, mentions several striking cases. The following will serve as an illustration:—A woman aged 45, four months previous to consulting Toynbee, began having noises in the head and deafness; "she has at times been so giddy that she has reeled and fallen in the streets, and at other times she has not been able to retain her hold of things, so that they have fallen from her hands." After removal of compact masses of wax all symptoms entirely disappeared.

Pressure may also be made on the stapes by *middle-ear catarrh*, and vertigo results. These cases are associated with Eustachian tube catarrh, and are often of recent development, so that inflation of the tube gives relief from the symptoms.

Apart from suppuration, most cases of aural vertigo are due to affections of the *internal ear*, conditions about which not much definite is known. These cases are often called cases of Menière's disease. This is wrong, because there is no one disease, but a group of diseases giving a triad of symptoms—*deafness*, *tinnitus* and *vertigo*. It is better to refer to cases having these symptoms as cases of "Menière's symptom complex." Among the better recognised causes are syphilis, mumps, gout, arterio-sclerosis, Bright's disease, high blood pressure, anæmia: also it occurs in conjunction with Bell's palsy, and after continued doses of salicylates and quinine; after head injuries patients complain of the symptom complex; but, though all these causes are recognised, it must be confessed that for many cases no cause is yet known.

Menière described the case of a patient who died after very severe attacks of vertigo, with vomiting, deafness, and tinnitus, and in whom he found hæmorrhages in the semicircular canals post mortem, and from this case others exhibiting the triad of symptoms were called cases of Menière's disease. There is no doubt that the case Menière described was one of some general disease—perhaps meningitis or leucæmia, in which hæmorrhage into the canals was merely an incident, as it were, the patient dying from some other cause.

Cases of Menière's symptom complex do not die from the presence of those symptoms; indeed, after a time the attacks of vertigo become less frequent and finally cease, though the deafness and tinnitus remain.

It will be noticed that following the above statement cases of wax in the ear, associated with tinnitus and vertigo, may be called cases of Menière's symptom complex, and indeed, perhaps indirectly, the same condition may underlie both—some change in the internal ear pressure. But there is an important difference in the form of deafness. Deafness due to affection of the middle and external ear is of a form called conducting deafness, in which, roughly, the appreciation of low notes is lost, but that of high notes kept, while the deafness one finds associated with internal ear affections is of the nerve type, in which appreciation of the high notes is diminished, while that of low notes is retained. The diagnosis of the type of deafness is a matter of importance, since it gives the guide to treatment. The treatment of cases of Menière's symptom complex due to internal ear affection is along somewhat similar lines, whatever the cause may be—counter irritation over the mastoid process, tonics, bromides combined with potassium iodide, regulation of diet and abstinence from alcohol, and attention to the general health probably by change of surroundings and rest from work. In cases where congenital syphilis is the cause of the symptoms the counter-irritation alone gives excellent results.

The next class of case with which I wish to deal is that in which suppuration is present in the middle ear. Many patients with chronic suppurative otitis media complain of giddiness. The cases may be put in three classes:—

1. Those where the vertigo is due to irritation of the labyrinth, perhaps a "serous labyrinthitis," or to pressure from a cholesteatoma, but certainly no condition which produces gross pathological change. Such cases entirely recover when a radical mastoid operation is performed, though at operation no change is found in the bony wall of the labyrinth.

2. Cases in which vertigo is complained of, and at operation a fistula is found in the bony labyrinthine wall, generally in the external semicircular canal; here, perhaps, is a localised infection of the membranous labyrinth. These cases, as a rule, recover completely after the performance of the radical mastoid operation.

3. Cases in which suppuration extends into the labyrinth. These cases are much more serious, and, indeed, may prove fatal by the spread of infection to the meninges, via the internal auditory meatus, with resulting suppurative meningitis. These cases of suppurative labyrinthitis suffer from very severe attacks of vertigo and vomiting, even when lying in bed. This vertigo may last three or four weeks and then pass off, leaving the ear deaf and the labyrinth functionless. When operation is performed the labyrinth may be found containing pus, as I have once observed, or granulations springing from a large hole in the bony wall. The fistula, which usually leads either into the vestibule or external canal, should be enlarged and the vestibule thoroughly drained, either above the facial nerve, "superior vestibulotomy," or below the facial, and by enlarging the oval window, combined "superior" and "inferior vestibulotomy."

It is in these cases of suppurative otitis media with involvement of the labyrinth that the various tests of the reaction of the labyrinth have a special practical value, to decide whether a given labyrinth is still functional or has lost that function.

The Landon Out-Patient Tea.

Christmas, 1911.

A meeting of the Out-Patient Tea Committee was held on June 14th, when the balance sheet was presented and confirmed.

As the surplus this year amounted to only £9 18s. 6d., as compared with £39 10s. 11d. last year, it was decided to make no grants to the Samaritan Funds, and to carry the balance forward for next year.

The two items of £15 and £9 10s. 11d. being grants, respectively, to the Out-Patient and Maternity Samaritan Funds, appearing in the balance sheet, represent grants made last year after the presentation of the balance sheet for that year.

It was decided that in future the Out-Patient Tea Fund be known as the Landon Tea Fund, in memory of the late Dr. T. H. W. Landon, who first organised an Out-Patient Tea.

STATEMENT OF RECEIPTS AND EXPENDITURE.

RECEIPTS.

	£	s.	d.
To Balance brought forward from last account	39	10	11
„ Donations, Collections, etc.	87	13	9
	£127	4	8

EXPENDITURE.

	£	s.	d.	£	s.	d.
By Grant to Out-Patients' Samaritan Fund	15	0	0			
„ Grant to Maternity Samaritan Fund	9	10	11			
				24	10	11
By Cost of Tea (Caterer's Account)	22	12	0			
„ Groceries, provisions, fruit, etc.	17	0	11			
„ Clothing	19	12	10			
„ Toys, etc....	14	3	10			
„ Cinematograph	8	8	0			
„ Printing, stationery, & postage	4	13	7			
„ Decorations	3	5	7			
„ Police fees, gratuities, etc. ...	2	18	6			
				92	15	3
„ Balance carried forward:— Cash at Bankers				9	18	6
				£127	4	8

Audited and found correct,

CHAS. H. WELLS,

Incorporated Accountant.

May 10th, 1912.

Rickets.

A Paper read before the Physical Society by Mr. J. A. Ryle.

(*Continued from page 327.*)

4. CLINICAL ASPECTS.

Hutchison recognises four distinct clinical types of rickets. Firstly, there is the so-called "acute rickets," a term which were better avoided, because under that heading cases of infantile scurvy have been described. This type is characterised by the rapidity of its onset, the predominance of visceral as opposed to osseous symptoms, the tenderness of the bones and an even greater tendency to sweating than exists in the other types of the disease. Secondly, there is the type in which the osseous symptoms are the most noticeable and constant. These are the cases which come under the eye of the surgeon on account of the resulting deformities. The third type includes those cases which may be defined as "catarrhal cases." In these, bronchitis and diarrhœa are the predominant symptoms, while the usual ricketty changes are less marked. The fourth type is characterised by laxity of the ligaments and great flaccidity of the muscles. It might, perhaps, be suggested that there is yet another type of the disease characterised by wasting. Marasmus is a condition with an entirely unexplained pathology—it is associated with malnutrition and malassimilation; in marasmus, hyperpyrexia not infrequently occurs; it is also reported occasionally in connection with rickets; and, lastly, slight beading of the ribs has been observed in cases to which a diagnosis of marasmus had been given. Although these types are fairly distinct, various combinations of them are met with.

A general picture of the disease would exhibit the following principal features. The child is pallid, flabby, and listless, and lies still, not caring to move or to be moved. It may be either very thin or well covered. The facies often have a prematurely aged appearance. Trousseau, in his humane and excellently descriptive discourse on the disease, seems particularly impressed by the forlornness of the facial expression that is frequently noticeable, and which he describes as "la tristesse habituelle empreinte sur sa physionomie." There is great muscular weakness, the child being often unable even to raise its head from the pillow. There is a general, but especially a bony, tenderness, upon which the earlier writers lay much greater stress than do more recent authorities on the subject. There is profuse sweating, especially from the head and during sleep. This sweating is apparently accompanied by a sense of heat, as it is almost a diagnostic sign for children to throw off their bedclothes at night. The temperature, however, is usually subnormal. If the child is able to sit up, its spine will be seen to curve under the strain, and it will frequently be compelled to support itself with its arms. The abdomen is, as a rule, extremely prominent, partly as the result of the depression of the viscera by the confined thorax, and partly on account of the weakness of the abdominal muscles and the distension with gas of the atonic intestines. The abdomen is, on account of this flatulent distension, very resonant to percussion. The head is of the oblong, box-like type, with marked bossing, and appears large in proportion to the face. The fontanelles are large, and may remain patent to the end of the second or third year. The so-called "bruit de souffle" may be heard on auscultation over the fontanelles The symptom known as cranio-tabes in which, in addition to the bossing and marginal rarefaction of the flat bones, dimpling and crackling may be elicited on pressure, may be present. According to some authorities this is a syphilitic manifestation, while others maintain that it is ricketty in so far as it is usually associated with laryngismus stridulus. Harrison's sulcus, beading of the ribs, enlargements of the epiphyseal ends of the long bones and curving of the long bones are all present in a greater or less degree.

The stools are often loose and offensive, but there may be constipation from muscular atonicity accentuated by flatulent distension (Hertz). There is a tendency to bronchitis. The nervous manifestations are often marked. In rickets the reflex excitability seems to be exaggerated, while cerebral control is defective.

Jenner was the first to call attention to the great tendency to convulsions that exists in ricketty children. Kirchgassen found evidences of rickets in 89 per cent. of 443 cases of infantile convulsions.

Laryngismus stridulus is an interesting condition which is very rarely met with apart from rickets. It is, however, perhaps questionable whether it should be included among the nervous complications of the disease. The condition, which is characterised by periodical arrests of respiration followed by long crowing inspirations, is, according to Osler and the more general view, spasmodic in nature and dependent upon a hypersensitive reflex state of the glottis. The spasms are excited by the slightest of stimuli, such as fright, anger, or a breath of cold air. They often occur when the child wakes up, and may be the precursor of a general convulsion.

Another view is that the spasms are dependent upon some central irritation; while, according to a third, the condition is closely analogous to the so-called thymic asthma, and is due to the pressure of an enlarged thymus on the bronchi, or possibly on the left recurrent laryngeal nerve. The thymus is certainly frequently enlarged to quite a considerable extent in rickets. Laryngismus stridulus is not frequently fatal, but in the one fatal case occurring in this hospital during a period of ten years, the

thymus was found to be enlarged. Taking this view of the condition, the analogy to status lymphaticus, which is also associated with rickets, will at once become apparent.

Tetany is another not infrequent nervous complication. Painful tonic muscular spasms, affecting more especially the hands and feet, are its main characteristics. It is distressing in not being controllable by chloroform or sleep. It often follows upon diarrhœa, and is occasionally accompanied by laryngismus.

Spasmus nutans, a condition characterised by rhythmical movements of the head is also said to be associated with rickets. Respiratory disorders, notably bronchitis and broncho-pneumonia, constitute a very large proportion of the complications of rickets. This is, in consideration of the marked chest deformities that occur and the tendency to catarrh, exactly as would be predicted. Rickets is, pre-eminently, a disease of complications. Indeed, cases of rickets are seldom admitted to the wards of a general hospital except for complications, as the following analysis of 156 cases admitted into this hospital during the ten years ending December, 1910, will show:—

Of this number, 92, or nearly 60 per cent., were chest conditions, there being 62 cases of broncho-pneumonia, 18 cases of bronchitis, 6 cases of lobar pneumonia, 4 cases of tuberculous broncho-pneumonia, 1 case of pleurisy, and 1 case of bronchiectasis.

Of the remaining cases, 12 were admitted for convulsions, 12 for diarrhœa or diarrhœa and vomiting, 7 for tetany, 6 for tuberculous peritonitis, 4 for rickets, 3 for laryngismus stridulus, 3 for marasmic conditions, 2 for miliary tuberculosis, and 15 for various other disorders.

Three cases of hyperpyrexia are mentioned, 2 associated and 1 unassociated with other conditions.

The course of uncomplicated rickets is variable. It may subside within six months or extend over a much longer period.

Little need be said here in regard to actual diagnosis, the important features having been already mentioned in the account given of the usual clinical aspects. Early diagnosis is, of course, extremely important, from the point of view both of treatment and prognosis. The accusation has been made in reference to the disease which is the subject of this paper, that it is one which is, as a rule, allowed to become worse and worse until it is too obvious to be missed, and is then labelled rickets. This is obviously a most unfair insinuation. In the first place, infants subject to rickets are seldom brought up for consultation until the disease is already advanced, and the bony changes have become sufficiently marked to catch the attention of the mother; and, in the second place, there is actually very little to go on until the swellings at the epiphyseal junctions, the beading of the ribs and the cranial bossing begin to make their appearance. The sweating, however, is an early symptom and should not be forgotten in the investigation of doubtful cases. It is largely owing to the insidious character of the disease, and the usual absence of acute symptoms, that it has not been possible to put on record more facts and features which might allow of earlier diagnoses.

So far as differential diagnosis is concerned, the conditions which must be borne in mind are so-called "scurvy rickets," or infantile scurvy, characterised by painful subperiosteal effusions and sponginess of the gums, various paralyses, achondroplasia, and possibly cretinism.

The sequelæ of rickets fall into two groups: (1) the sequelæ of the complications; (2) the deformities. The second group only demands special consideration here, but in reference to the first, the tendency to various forms of tuberculosis, more especially pulmonary and peritoneal, should be noticed. The late skeletal results of rickets vary from the minutest divergences from the normal to the most extreme and distressing of deformities. A general or partial kyphosis and scoliosis are the usual spinal derangements. The features in the limb affections are the shortening of the long bones, the enlargement of their epiphyseal ends and varying degrees of permanent curvature. Green-stick fractures are not at all uncommon, and are liable to be overlooked, the softness of the bones tending to abolish the sensation of crepitus.

Probably the most important changes are those affecting the pelvis. Rickets is responsible for a very large proportion of contracted pelves with the accompanying liabilities to difficult and dangerous labour.

5. Prevention and Treatment.

One of the most satisfactory features of rickets is that it is preventable. The care of infants, it should always be remembered, is essentially a prophylactic process. Rickets is one of the regrettable results of a failure in prophylaxis. The initial failure, so far as it is due to a shortage in the natural milk supply, is frequently unavoidable, but for an extension of this failure such factors as ignorance and poverty are alone responsible.

A point that is of the utmost importance in preventing the occurrence of rickets in a child that has been weaned early is that the diet should not be chosen only for its nutritive value, but should also be one which will not be liable in any way to set up gastro-intestinal disturbances.

It would be impossible here to go fully into the question of infant feeding, and, consequently, only a bare outline will be given. The first essential is that fat, protein, and carbohydrate should be administered as nearly as possible in the proportions in which they are present in human milk, that is to say, the food given should contain 3·5 per cent. of fat, 1·5 per

cent. of protein, and 6·5 per cent. of sugar, with the addition of the necessary salts. The nature of the substitute employed depends perforce on the circumstances of the parents. The wealthier parents will be able to afford a wet-nurse, or ass's milk, while the poor must be content with cow's milk. Cow's milk, however, if properly employed probably gives as good results as any other substitute. With the right dilution and, if necessary, with the addition of sodium citrate, with due precautions as to cleanliness, such as the scalding of bottles and receptacles, and the straining and scalding of the milk, and, finally, with proper regulation of the hours of feeding, excellent results may be expected. Alimentary disturbances must be avoided as much as possible, and treated, if they occur, by modifications in the diet. Apart from feeding, careful attention must be paid to hygiene and cleanliness. Sunshine, good ventilation, and warm clothing are all valuable adjuncts to the prophylactic process.

The curative measures are, again, chiefly dietetic and hygienic, medicinal measures, except in the treatment of complications, being of only secondary importance. Any digestive derangement must be cured as soon as possible by suitable alterations in the diet, and the essential constituents, as nearly as possible in the correct proportions, be administered. Cream and meat-juice may be added to the diet in gradually increasing quantities as the child grows older. Unfortunately cream and good milk are not easily obtained by the poor; their place must be taken by cod-liver oil. In older children, bacon-fat and malted foods are valuable additions to the dietary. In cases where there is the slightest suspicion of scurvy, and in all cases where feebleness is marked or anæmia present, fresh vegetable juice should be given.

There is very little to be said in regard to drugs in the treatment of rickets. Cod-liver oil, regarded by some as a specific, is certainly extremely useful. It must not, however, be given in too large doses, as it is liable to set up diarrhœa. It is rendered less laxative by being prescribed with lime water. Iron preparations are not to be despised, but they are not so effective as meat-juice. Phosphorus, on the grounds of its reputed bone-consolidating properties, has been used apparently with some success. Extract of thyroid and thymus have also been tried. Suprarenal extract is said to control the sweating, and to hasten the repair of cranio-tabes. It is also supposed to improve the condition of the teeth.

Massage, if available, is of great service, being a very excellent stimulant of tissue nutrition. Warm and cold douches are also prescribed, and warm clothing is essential. The treatment of the deformities resulting from rickets is mainly surgical, and will not be considered here. During the earlier stages, however, much can be done to avoid permanent deformities by ensuring complete rest, and by the application of splints, both for the purpose of straightening the limbs and for limiting the activities of the patient.

6. Sociological Considerations.

In dealing with the sociological aspects of a disease it is necessary to discuss the effects of society on the disease as well as the effects of the disease on society. Rickets is a disease which owes its existence to defects in social organisation, and which repays society by providing it with unfit members.

The incidence of rickets bears a direct ratio to the incidence of poverty, and it is highly improbable that it will ever be found possible to diminish the amount of rickets in the world to any great extent without diminishing the amount of poverty. It may be argued that the existence of rickets is rather dependent on the ignorance that accompanies poverty than on the actual poverty itself, and that, on this hypothesis, better educational methods might lead to a diminution in the amount of the disease without appreciably affecting the amount of poverty. A moment's consideration, however, will show that the argument is invalid. In the first place, those foods which most predispose to rickets, namely, farinaceous foods, are the cheapest, and, conversely, the best foods for the prevention and cure of the malady are the most expensive. Moreover, the most valuable food of all, namely, milk, in addition to being expensive, seldom reaches the poor purchaser in anything approaching a pure state. It is little realised to what a wide extent watering and adulteration of milk is carried out in this country. One can scarcely conceive of a more criminal act than that of deliberately diminishing the food value of a substance upon which the health and existence of thousands of babies depend; and yet it is an act which is perpetrated daily in all parts of the country, and which often escapes punishment. In the second place, it is impossible for good hygiene and cleanliness to exist in bad houses and dirty cities; and, in the third place, one cannot expect babies to be successfully reared when circumstances necessitate the mothers working all day, and when the mothers, in consequence, are not infrequently compelled, even when they have a sufficient supply of milk, to give up suckling their infants.

So that, apart altogether from the ignorance of parents, we are faced with the fact that economic and environmental conditions alone are, to an enormous extent, responsible for the occurrence of rickets. Some amelioration may be expected to result from an improvement in the public health service and from food and housing reform, but economic conditions still present the most formidable difficulties in dealing with rickets and with other diseases which owe their existence to the same or similar causes.

Rickets adversely affects society in several ways. Firstly, by predisposing to serious complications, it

assists in the maintenance of a high rate of infantile mortality ; secondly, it is responsible for a large number of cripples, and for a still larger number of weak and unhealthy individuals; and thirdly, it again assists in keeping up the infant mortality rate, and simultaneously in endangering the lives of women by being the cause of a large proportion of contracted pelves.

In conclusion, it is only necessary to emphasize once more the most important features of the disease. It has an incomplete pathology. It is a disease of infancy, and hence has as great a claim upon our professional zeal and activity as it has upon our sympathies. It is a preventable disease, and hence by its very existence should stimulate our interest and urge us to do our utmost in the direction of its eradication.

A Case of Hairpin in Rectum.

Miss J., aged 72, suffering from constipation and scybala in the rectum, tried to help herself by using the rounded end of a hairpin, the points of which she held in her hand. While so doing the hairpin escaped into the rectum.

On examination by the finger, one point could be felt about two and a half inches within the sphincter directed downwards and slightly forwards. The other point could be made out about one and a half inches away from its fellow and towards the patient's right.

An attempt to secure the two limbs of the hairpin simultaneously and to bring them together with a long-bladed pair of forceps was made without success. Another plan, which proved successful, was then tried.

The tip of the left forefinger was passed into the rectum and kept on the point, which was most easily felt. A blunt curette was passed along the finger and the loop run over the point of the hairpin and passed up the shaft. The curette was then moved so as to carry the end which was in the rectum upward and backward toward the sacral hollow, and was then brought down.

In this quasi-obstetric manner the hairpin was safely, but not very comfortably, delivered. One leg of the pin had become a good deal bent, so that there was a partly transverse instead of a head presentation to he dealt with when the actual delivery was accomplished, but beyond a little scratching of the mucous membrane near the anus there was no harm done.

"*Haec olim meminisse jurabit.*"

A Cry Answered.

What an incentive to work to see success achieved! "High failure" may have its ethical value, but to cheer the traveller along the road it is a great encouragement to know of those who have arrived.

A journey to Alton is a delight in this respect. On the slope of a hill in one of the most beautiful parts of Hampshire, 47 miles from London, a splendid fight is being made to grapple with the appalling problem of the tuberculous child through the initiative and devotion of Sir William Treloar. The estate is situated 400 feet above the sea-level, looking south, and bounded by five acres of wood. The official name, "Lord Mayor Treloar's Cripples' Home and College," seems to me not fully to describe the scope and value of the work undertaken. As I hope to explain in these brief notes, two separate organisations are at work. One is the Cripples' College, where 60 deformed boys from the ages of 14 to 18 are taken and given such skilled technical instruction, chiefly in hand-sewn leather bag making, as will enable them to earn their own living. Their general health quickly improves with country air and good regular food. As Sir William Treloar says in one of the reports:—

"I need only touch upon the value and significance to the cripples themselves of the training given at Alton. In most cases when they arrive, they are in a state of apathy; for many years they have looked upon themselves as a burden to their parents, without a possibility of becoming wage earning and responsible citizens. All this is quickly changed; they see a brighter prospect before them ; they become manly in tone and are ready to face the battle of life with confidence and courage."

The College is worked entirely apart from the Hospital proper. The domestic matters and recreations and sports (for the boys play football with the aid of crutches) are under the direction of the College Master, an ex army man. This is of great social interest, but to hear of the hospital section will appeal more deeply to readers of the Gazette.

In 1907 an Act of Parliament made over to Sir William Treloar the property known as Princess Louise Military Hospital, which had been used for soldiers invalided after the Boer War. The one-storey bungalow buildings of pitch pine are wonderfully adapted to their present use. They are widely scattered on the hillside, splendidly ventilated, and all with some windows facing south. The nursing arrangements struck me as well nigh perfect, and most valuable experience with children is to be gained under the superintendence of the matron, Miss Robertson. There is no theatre work, for the treatment is all conservative (the aspiration of abscesses excepted). On the other hand, the nurses pass through the plaster room and gain a practical experience certainly not

attainable elsewhere in England. The absolute efficiency and elaboration of detail regarding the various splints and appliances would delight and interest any nurse visitor. In spite of the restrained position of many, the happiness of the children was evident, and for those able to move or be moved about tea parties among the hay were in full swing.

The nurses are encouraged to assist in the open-air school work and class singing in the wards. The intelligence and beauty of certain tubercular types, enhanced by the fresh air and bright surroundings could be observed with delight; the tragic pathos of the scene would otherwise be unthinkable, over 200 children accepting the inevitable with their usual philosophic patience.

Of the medical work and its results I must leave those to speak who are qualified to do so. I believe Mr. Gauvain, the medical superintendent at Alton, intends to arrange a series of clinics for students from the London hospitals, and they should be of the greatest interest.

To summarize briefly a few of the most striking features of the work. The average length of stay of each patient is 405 days. A plaster cast is taken of the body or limb of *each* child, and any splint or removable jacket required is made by it. The plaster work is absolutely unique, and the technique of its application perfect. Plaster jackets are largely used for the various cases of spinal disease, and in the treatment of hip and knee-joint disease strict immobilisation is secured with plaster, combined with extension when necessary. Celluloid jackets, made at Alton under Mr. Gauvain's direction, are used when such a stage is reached that a removable jacket can be worn. They are very light and cleanly.

To those working in a general hospital, where such specialisation is impossible, the treatment of early spinal caries is a revelation. At Alton about 100 such cases are always in the wards. Mr. Gauvain has designed two splints for the treatment of spinal caries, known as the "wheelbarrow" and the "swinging back door." They are cheap, and most practical from the nurses point of view, as the back of the child is accessible without in any way interfering with the immobilisation of the spine. Deformity is prevented or corrected, as the splint is padded appropriately for each child. Hyper-extension can be obtained when spasm of the psoas is present, and this treatment is a special feature in Mr. Gauvain's method.

Statistics of the Hospital up to April 25th, 1912.

Number of patients admitted since the opening in September, 1908, to April, 1912	...	735
„ discharged as cured	...	465
„ discharged improved	...	29
„ discharged to other hospitals or unimproved	...	15
„ of patients now under treatment	...	219
„ died	...	7

It is to be hoped that in the near future schemes for the improvement of the National health will include an "Alton" near every town, large and small. As the late Sir William Broadbent pointed out there is not the needful accommodation in the general hospitals, "and, it must be added, lack of interest in these cases, when after the first few weeks the disease is rendered quiescent and the process of repair begins; the difficulty in finding teaching material in patients efficiently treated by fixed apparatus; the frequent change in the personnel of our medical schools and the preference for cases of more decided interest and involving operations with more speedy results, are all facts admitting of no denial. The truth is that the only satisfactory treatment of tuberculous disease is the preventive one by strict adequately prolonged rest *from the very earliest possible stages.*"

At present the children must be treated as outpatients. It would be interesting to know if early tuberculosis has ever been cured under those conditions. Think of the incompatibility of the average child with the splints in general use. The splints are often removed at home if only bandaged on, and if fixed with plaster there are dangers from sores and "inhabitants" other than the wearer.

The Invalid Children's Aid Society do all in their power in sending these children into the country, visiting them at home and arranging for the hire of spinal carriages. Is not the result of this procrastination, however, life-long deformity, and admission to the general wards when "acute," with indefinitely prolonged treatment, the result of inefficiency in the beginning?

Leaving Alton on a lovely summer evening one is thankful to think of the beneficent work in progress there. On arrival in south-east London there are no congratulatory thoughts possible. Here in our apathy and blindness we are *content* to allow that poverty and ignorance shall produce preventable disease and untold suffering among the children of to-day and those yet to be. A thousand remedial measures may be at work, all honour to those who inaugurate them, but the time must come when they shall not be thought sufficient. A new social conscience will remove the need of their being.

F. A. SHELDON.

Birth.

MOLLISON.—On August 7th, at 26, Nevern Mansions, S.W., the wife of W. M. Mollison, F.R.C.S., of a daughter.

Marriage.

EWING–ANDREWS.—On August 1st, at Frampton-on-Severn, Gloucestershire, Alfred Washington Ewing, of the Moat, Puckeridge, Herts, only son of Sir Alfred Ewing, K.C.B., Director of Naval Education, to Eleanor Kitty Andrews, younger daughter of the late A. G. Andrews and Mrs. Andrews, of Frampton Lodge, Frampton-on-Severn.

Ed.—J. A. R.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 631.] AUGUST 31, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Obituary: John Wade, D.Sc., F.I.C., F.C.S.	345–346
Passim	346–348
John Wade, D.Sc.: An Appreciation ...	348–350
Appointments	350
London Bridge and the Borough in the Eighteenth Century (*continued*)	350–352
Correspondence	353
Caseous Mediastinal Glands. Clinical Lecture by Dr. Cameron	355–359
Pass List	359
Chronic Appendicitis (Appendix Dyspepsia) simulating Gastric, Duodenal, or Gall-Bladder Disease by R. P. Rowlands ...	359–361
On the Importance of Studying the Signs of Death	362–363
Reviews	363
Change of Address	363
Papers by Guy's Men	364

Obituary.

JOHN WADE, D.Sc., F.I.C., F.C.S.

THE death of Dr. Wade, and the sad circumstances attending it, will come as a great blow to many generations of Guy's men who have known him and profited by his careful instruction. Beside his great scientific eminence he was endowed with a peculiar charm met with sometimes in workers in pure science, a simplicity of manner—almost boy-like—which especially endeared him to his personal friends. Wade's mental acumen and high intellectuality made his opinions respected in political and philosophical spheres; but for the last few years he has very closely specialised in Chemistry, and rather cut himself off from other influences.

He was a very keen London University man, and as a member of the Senate he will be difficult to replace. A stalwart champion of the external side of the University of London, his straightforward and manly evidence before the Haldane Commission on University Education in London created a distinct impression, for Wade pressed home the fact, which he had often instanced to his friends, that without the external side it would have been impossible for him to have attained the high position he did in the scientific world. His opposition to the project of concentrating Preliminary Science Teaching at South Kensington led to the abandonment of that scheme, for he was able to prove by statistics to the various hospital authorities that the local teaching of science subjects at the medical schools was to their pecuniary advantage, and not, as had been without evidence assumed, directly to the contrary. He, too, strongly held the view that subjects like chemistry are best taught to small classes under direct personal supervision, rather than in an enormous institution such as the one then projected.

Born at Deptford in 1864, Wade was, before proceeding to the London University, educated at Aske's School, Hatcham. His father, who occupied an official position in the Kent Water Works, was a man of imagination and an amateur artist of considerable merit. From his mother he inherited his business ability and power of organisation. Choosing Chemistry as a profession, he will be first remembered at Guy's as Laboratory Assistant to the late Sir Thomas Stevenson, then Lecturer on Chemistry to the Hospital. Having taken his B.Sc. degree, he was for a short time in practice in Southwark as an analytical chemist, holding municipal appointments. These he abandoned to become Demonstrator of Chemistry to our hospital, and carry on original research. While so working he published his book, "Introduction to Organic

Chemistry," which went through many editions and was translated into several foreign languages. He took his D.Sc. degree in 1902.

His contributions to the "Transactions of the Chemical Society," were many, among which will be remembered the following:—

The Constitution of the Metallic Cyanides as deducted from Synthetic Interactions: The Constitution of Hydrogen Cyanide, 1902.

Ethyl Ether. The Influence of Water and Alcohol on its Boiling Point. With H. Finnemore, B.Sc., 1909.

The Correction of the Specific Gravity of Liquids for the Buoyancy of Air. With R. W. Merriman, M.A., 1909.

Influence of Water on the Boiling Point of Ethyl Alcohol at Pressures above and below the Atmospheric Pressure. With R. W. Merriman, M.A., 1911.

Apparatus for the Maintenance of Constant Pressures above and below the Atmospheric Pressure. Application and Fractional Distillation. With R. W. Merriman, M.A.

His Researches on *The Destruction of Rats and Ship Disinfection* appeared in a Report for the Local Government Board, 1907.

His sad death was met with under particularly distressing circumstances. He had taken quite recently to motor cycling, and on July 28th last, whilst riding at Otford, he came in contact with a fruit cart, which came suddenly round a corner of the road. The shaft of the cart struck him violently in the upper part of the left chest, fracturing four of the ribs in front and so damaging the lung. He was taken to the Cottage Hospital, Sevenoaks, and attended to by Dr. Sichel, who called Mr. Steward in consultation. After the first week, though his condition had at first been very critical, he showed distinct signs of improvement, when he was suddenly seized with pulmonary embolism. Pneumonia now supervened in the right—the undamaged lung—and he was seen by Dr. Beddard. After another week his temperture fell and he gave evidences of ultimate recovery. On Thursday, 15th August, he developed signs of a second embolism and died suddenly.

We would offer our heartfelt and sincere condolences to his widow and to his only child, Oliver, who by his scholastic successes has given promise of worthily following in his father's footsteps.

Passim.

The announcement of the death of Dr. John Wade, for many years lecturer in Chemistry at this Hospital, will have come as a shock to all his old pupils and colleagues. Only those who have had the benefit of his excellent teaching can fully appreciate the severity of the loss that Guy's sustains by his untimely withdrawal from our midst; and only those who are acquainted with his life-story and all his many claims to honour and respect as a man, apart from his merits as a teacher, can realize the full significance of his death, in so far as it must affect both the scientific world and the greater world outside. For his success in his profession his great enthusiasm was, surely, in the main responsible. It was an enthusiasm which must have been apparent and stimulating even to the dullest of students working under him. It was an enthusiasm which deserved, and in a great measure won, the fullest rewards. Many of us will long continue to look back with gratitude, not only for his personal teaching, but also for the assistance rendered and the interest aroused by his entirely unrivalled text-book on Organic Chemistry. For Guy's the loss is indeed great; but there are others for whom the loss is incalculably greater, and it is to these especially, in their bereavement, that we would extend our deepest sympathies.

It has been suggested before, but we think the subject is one which will bear repetition, that much greater use might be made by the London medical student of the advantages offered him, by the existence within the metropolis, of a multiplicity of hospitals and medical schools. In the past, whether from a spirit of jealousy or laziness, the adherents of the several schools have been amazingly content with the material, both clinical and pathological, to be found immediately at hand; and yet a moment's consideration must show that such a policy of content is, to say the least, a short-sighted policy. For the variations that occur from place to place are not merely variations in material—these are probably slight and of small

significance—but variations in men and in methods; and that such an insularity should be countenanced as to allow neglect of the possibilities afforded by these, of extending one's small knowledge, and discovering new and interesting aspects, seems rather regrettable. It must further be realized that the institution of lines of communication between the various hospitals and schools, resulting from some scheme of interclinical visits, would eventually prove beneficial, not only to the participators and their careers, but also to the hospitals themselves, and to their patients. We would suggest, furthermore, that occasional attendance at the cliniques of the various special hospitals, or even in the wards of the larger infirmaries, which frequently boast a selection of excellent cases, might well repay the slight trouble they would be likely to involve.

In these days of stern competition and limited incomes, continental tours are luxuries possible only for the minority, but the experience and interests discoverable at the various institutions within our reach afford a substitute by no means to be despised. The complaint may be made, and justly made, that our time at present is already very fully occupied. This is certainly undeniable, but we would add the reminder that the present, also, is the only time really prolific in opportunities. The rapidly approaching post-graduate future has little to offer for the majority but hard work and lessening chances of acquiring a first-hand knowledge of contemporary methods. It would not, we think, require a vast amount of organization, especially if accompanied by reforms relating to the question of "signing-up," to inaugurate a systematic interchange of visits between hospitals without in any way interfering with the work or liberties of the participants.

In a letter of criticism headed "The Scandal of our Hospitals," appearing on another page of this issue, we have our attention drawn to the existence of a certain type of mind—a fairly rare type fortunately—whose systematic purpose it appears to be to unearth the grain of evil from the general mass of good, and to exaggerate concerning the former at the expense of the latter. The arguments originating from such a mind are usually (and particularly is this the case in the present instance) rendered more or less invalid by the mere fact that they bespeak an insufficient acquaintance with the actualities of their subject. If the writer of the article in question had been possessed of some inner knowledge of the demands and methods of the medical curriculum and the working of hospitals, he would not have laid himself so palpably open to ridicule. He cannot unfortunately realize the absurdity of the suggestion that clinical experience should be gleaned from special, subsidised abnormal individuals. Intimate observation of innumerable cases is the only reliable method of attaining accuracy in diagnosis. Moreover, the impermanence of most abnormalities, and especially of tractable abnormalities, sufficiently exposes the futility of the suggestion.

We venture to think that a short period spent in the wards at Guy's would tend to modify the author's views in regard to the "mauling" at the hands of "incompetent youngsters," and the general violence of "eminent surgeons," and to suggest that the general lack of complaint on the part of patients is sufficient testimony on our behalf. Our experience quite frequently has been that repeated examination is rather appreciated than condemned by hospital patients. The prolonged waiting in the Out-Patient Department is, indeed, a difficult problem, but it is not from any callousness or want of effort on the part of hospital authorities that the problem remains unsolved. This is the only branch of hospital management concerning which we have heard any consistent disapprobation from the mouths of patients of the hospital class, and in spite of this the majority of them seem content to continue their attendances.

Holiday-time in the Borough affords a very striking contrast with holiday-time in the more aristocratic quarters of the metropolis. In the latter regions an eloquent silence reigns; in the

former a no less eloquent uproar. Court-yards and alleys in the neighbourhood of Guy's, and presumably elsewhere in the South and East, have lately been filled to overflowing with children of all sizes and all degrees of grotesque uncleanliness, and, in spite of the fact that the seaside and green trees are in the nature of a distant mystery to most of them, there has been a general pervading air of content with their small resources and boisterous delight in simple pleasures that gives one just cause for gratitude and wonder. It is in this childish content with the absolute antithesis of luxury, we suppose, that the patient philosophy of the Borough parent originates. At a time of year, when the more fortunate half of humanity is giving itself up to relaxation and enjoyment, there is still to be found in house after house, where strikes have bred nothing but emptiness, a greater scarcity of complaints and a greater sum-total of cheerfulness than many west-end homes can boast. In some respects, at least, the blessedness of poverty remains a very permanent truth.

The letter quoted below was addressed to "The Head Doctor, Guy's Hospital," and was appropriated by a house-physician. The author seems to have been as little impressed with the possibilities of modern medicine as with the necessity for conventionality in literature:—

Agu 21th 1912
No. 89, Green
Charlton Cottage
Radstock
Somerset.

Der Sir

In taking the lebuarty in writing you this to informe you that you have a young Woman at your hospital with a bad hand from Radstock sommerset the name of Lilly P——. If you cant do nothing for her hand y wish you well let it stop has it is and y well have her back home.

Yours truly Andrew P——.
I ham her father.

We have been asked to announce that the final for the Nurses' Inter-Hospital Lawn Tennis Cup is to be played on Friday, September 6th, at 3 p.m., at the Edmonton Infirmary. The finalists are Guy's and Hendon. The *Nursing Times* is entertaining the visitors, and the Cup will be presented on the ground. It is to be hoped that our representatives will be well supported, and that the Nurses' Home and the College will both send stentorian contingents to cheer them to the victory, which we feel sure they deserve.

J. A. R.

John Wade, D.Sc.

An Appreciation.

I first met Wade in 1883, when, in a sense, I became his colleague. In somewhat different capacities we both served Sir Thomas (then Dr.) Stevenson, and our contact, therefore, was frequent and close. In the years that followed I may claim to have gained his intimate friendship. For me it was one of those intimacies which colour life. Without it I should have been a different person; should have felt differently, thought differently, and, I doubt not, should have made a different business of my life. I mention this only in support of my claim to speak of him.

In the days of our very earliest acquaintance Wade was full of the joy of life: a large, chubby, prankish boy. But even then, when one got closer, one found him with a serious outlook, and a very keen desire to do something worth while.

He matured intellectually with great rapidity, and his friends soon realised that he was capable of great accomplishment. Early manhood brought him difficulties, however, some of which were due to temperament. There was in him a notable and interesting play (often a war) of hereditary factors. His father was an artist to the finger tips; sensitive, non-combative; gifted with a seeing eye; one who busied himself with colour from pure instinct, painted because he could not help it, and produced work which, while it lacked the technique necessary for perfect accomplishment, was work of genius. No one who did not realise that this artistic temperament, derived from his father, was an essential part of his inheritance could fully understand John Wade. But in him it was partly overlaid, and, from the superficial observer, even hidden by a remarkably practical turn of mind. What is even less usual, it was commingled with a real instinct for affairs; with a fighting political spirit, derived from a grandfather, who in his time was a noted protagonist in the struggle for civil and religious liberty in South London.

But a more sensitive, even a shrinking, side to Wade's character came to the front often enough in private, a side of him that even interfered with his work. He was deeply sensitive to criticism, and while most keen to do creative work, he was, in

his younger days, too easily depressed and inhibited by temporary failures. Against this tendency he made a good fight, and he lost it in later years.

As a young man he was somewhat introspective; one of those who feel called upon to make conscious efforts towards a personal solution of the riddle of life, and he was often oppressed by the greatness of that riddle. At one time he thought to make a real escape from its oppression through the agency of music, and this endeavour illustrated an element of the mystic in him which no one would ever suspect who only knew his practical side. Wade was a born musician, and might have been, had he so chosen, a highly accomplished one. "In the company of Beethoven," he once said to me, "scales fall from the eyes." Yet a little while after this he entirely lost faith in the saving power of music, and it was characteristic of him that when his mind had taken this turn he gave up music altogether. He tried other solutions, and often submitted a brand new one for the approval of his intimates.

I have touched upon this side of Wade's younger manifestations, not because such tendencies are rare in the development of young men of intellect, but because I think, in his case, they counted for more than is common. They delayed rather long that ease of mind which a man must attain to before he can come to grips with his work. As was natural, they came especially to the front when his future was unsettled and his prospects uncertain. At one time, before the retirement of his seniors somewhat unexpectedly cleared the way for him, Wade looked upon the possibility of a scientific career as almost hopeless, and started with distaste to prepare himself for one of the minor branches of the Civil Service. He was happy in getting back to chemistry, and, once things were clear before him, he lost the introspective habit in carrying out with high efficiency the practical duties of his post at Guy's. His temperament never made things easy for him, but from this time he never lost grip, and his great talents had free play.

In his scientific development, Wade owed to others as little as it is possible for any man to owe. Intellectually he was self-made. As a youth he had the advantage of the fact that the circle of his father's friends was a cultured one, and he lived in a cultured household; but of systematic scientific teaching he had almost none, a fact that should be borne in mind in appraising his accomplishment.

Of that accomplishment even he, with his high standards, had good reason to be proud. He brought his department into a state of high efficiency in accordance with modern standards. His influence in the counsels of the London University was great, and he was successful there in gaining nearly all the ends he had in view. He produced a book upon organic chemistry which to students of capacity is most stimulating and enlightening, and he published original work of the highest importance. The actual bulk of his published researches was not great, but no one who knew Wade will deny that as an investigator he was much greater than a measurement by mere output would betoken.

The side of his temperament already touched upon sometimes made research difficult, and his desire for perfection always made him slow to publish. He gave, moreover, a great deal of his time to University and Medical School politics, and for some years he was engaged upon laborious technical investigations on behalf of the Local Government Board. Moreover, a teacher at a Medical School is not ideally situated for research work in pure science. It is well nigh impossible for him to get his ideas worked out by students, and research is not looked upon as so essential a part of his duties as it is in the case of one holding a more strictly academic post.

Chemistry owes much to the London Medical Schools for they have found a living wage for many men destined to advance the science; but a pure chemist at a hospital school cannot expect to find much intramural enthusiasm for his researches; there is always the sense that such work is of secondary importance to the place. Doubtless, this is less true now than formerly, and Wade himself greatly felt the stimulus due to the liberal treatment afforded him in recent years by Guy's. His death was untimely in this as well as in other respects. He had quite recently become immersed in original work of great promise, and the next few years would undoubtedly greatly have enhanced his reputation in the scientific world. But, as it is, he takes high rank. His work upon the cyanides is classic, and the high degree of accuracy imported into his studies of the boiling points of mixtures has gained them attention all the world over.

As a scientific thinker, Wade was especially characterised by an earnest belief that chemistry ought to be, and is very soon to be, liberated from the shackles of atomistic hypotheses. He held that all the stoichiometric laws and all that is special in chemical phenomena are capable of explanation from the standpoint of energetics. I must point out that he held these views when quite young, long before Ostwald had delivered his Faraday lecture in 1904, and before the writings of Franz Wald (that "solitary philosopher," as Ostwald called him) were known to him. I remember hearing Wade expound his opinions in 1895, and I realised then, as often later on, how great was his tendency to be pre-occupied with the widest and most general aspects of his science. He had always intended that his own researches should bear on the above great matter, and he was taken away just as that intention became realised.

He was engaged, in conjunction with Mr. R. W. Merriman, in a study of the proportion of mixtures with constant boiling points. The research was one destined to be of great significance, and it is to be

hoped that the results, if even fragmentary, may be published and the work continued.

Of Wade as a practical teacher I am not qualified to speak. That he was a good examination coach is unlikely; but I know how admirably he could instruct a friend, and I am sure that he could give the highest kind of teaching to any pupil whose desire was for knowledge.

In three consecutive years of his diaries the following is set down: "This I will say, that I have thought to live worthily while I lived, and after my life to leave to the men who come after me a remembrance in good works." That this aspiration was abundantly realised no one who knew Wade will doubt. He was removed with his work unfinished, but he has left a great and noble record. F. S. H.

Appointments.

Naval and Military.

ROYAL NAVY.

Staff-Surgeon A. Wernet, R.N., has been appointed to the *Pembroke*, for Royal Naval Barracks.

Surgeon G. B. Cockrem has been appointed to the *Russell* on re-commissioning.

Surgeon F. G. Goble has been appointed to the *Pembroke*, additional.

Surgeon K. H. Hole has been appointed to the *Pomone*, additional for Royal Naval College, Dartmouth.

R.A.M. CORPS.

The following promotions have been notified:—

To be Major: Captain A. J. Hull, F.R.C.S., July 29th, 1912.

To be Captain: Lieutenant H. F. Joynt, M.B., July 30th, 1912.

Lieutenant G. A. Blake, M.B., from the Seconded List, is restored to the Establishment, August 1st, 1912.

Captain F. J. Turner retires from the service, receiving a Gratuity.

Lieutenant A. G. Jones has passed the examination for promotion to Captain.

I.M.S.

Major G. T. Birdwood, Civil Surgeon at Agra, has been transferred to Lucknow as Civil Surgeon.

The following have been appointed Lieutenants on probation:—

J. B. Hance, M.B.
G. Y. Thomson, M.B.

Civil.

Dr. F. Shufflebotham has been appointed a Member of the International Committee on Industrial Accidents.

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 334.*)

VI.

THE CATHEDRAL.

"*Now the same St. Mary Overy is the parish church for the said Mary Magdalen, and for St. Margaret on the Hill, and is called* ST. SAVIOUR."

STOWE.

The older name, still remembered to-day, has been variously explained. Modern authorities generally agree to derive it from "St. Mary Ofers," that is, St. Mary of the bank or shore; the earlier writers, Stowe and Camden, preferred *Over-rey, over the water*, on the analogy of Surrey, *Suth-rey*, south of the water. Yet popular belief in a less exacting etymology has long clung to the idea that the church was founded by one Mary o' the Ferry, or o' Ferry's; and with the aid of a mediæval effigy of an emaciated corpse (which, like many of the monuments in the church, has been hunted from pillar to post, but is now in the Lady Chapel), has manufactured a legend which supports the argument to a marvel. Mary, says the story, was the daughter of Awdrey, a rich but miserly ferryman who plied between St. Saviour's Dock and Dowgate in the days before any bridge existed. Awdrey, consumed by curiosity to know how his household would receive the news of his demise, wrapped himself in a shroud and feigned death. The rejoicings of his servants (who proceeded to *wake* him very thoroughly) having answered the question beyond all doubt, the pretended corpse arose from his bier and showed himself among them; when one man, with a blow from an oar, made an end of all pretence. The monks of the neighbouring monastery, continues the chronicler (begging the whole question), at first refused burial to the body of a man of whom, living, they had heartily disapproved; but, their Abbot being absent, they succumbed to a bribe, and consented to the interment. When, however, the Abbot returned, he ordered the body to be exhumed and tied to the back of an ass, which was driven out into the highways through the abbey gates as a warning to any who should likewise venture to offend the church. After much wandering the ass finally deposited his burden at a spot known as St. Thomas-a-Watering in the Old Kent Road.

Meanwhile, Mary's lover (who had not found favour in her father's eyes), hastening to rejoin her, was thrown from his horse and killed; so Mary withdrew from the world and founded a sisterhood of nuns.

Later, according to Stowe, this nunnery was converted into a college of priests (who built and main-

tained the earliest wooden London Bridge) by Swithen, a noble lady. Other historians will have it that this reformer was none other than the famous Bishop of Winchester, St. Swithin (a subject of King Ethelwulf, Alfred the Great's father), who was buried on July the 15th, at his own desire in the churchyard of St. Mary Overies where the rain, dripping from the eaves of the church, might fall on his grave. At a later date his body was translated, with much pomp, to a magnificent shrine in Winchester Cathedral. Tradition has added to his fame certain beliefs previously associated with a rain god of the northern mythology.

History is on rather firmer ground in attributing the next change, whereby the priory was refounded in 1106 as a college for canons regular, to a pair of Norman knights, William Pont de l'Arche, at one time treasurer to the Conqueror, and William d'Auncey. In the same year William Gifford, Bishop of Winchester, built the body of the church. Peter de Rupibus rebuilt this after the great fire of 1207, and added a chapel dedicated to St. Mary Magdalene, which afterward was appointed to the use of the inhabitants of the parish of that name.

Richard II. (whose badge, the White Hart, we have already seen in the Borough), or his subject, John Gower, the poet, rebuilt much of the church. Gower certainly subscribed handsomely, and, in addition, founded a chantry in the chapel of St. John, afterwards converted into the vestry.

At the beginning of the 15th Century Cardinal Beaufort contributed largely to the rebuilding. The arms of the Beauforts are to be seen carved on a pillar in the south transept; in "the old remaining sculpture, on each side there appear strings pendent and plaited in a true-lovers' knot, with a cardinal's hat over." Bishop Fox of Winchester (1500—1528) who was Lord Privy Seal in 1516 and Minister to Henry VIII. until supplanted by his chaplain Wolsey, erected the fine altar-screen, bearing many points of resemblance with the reredos previously constructed by him at Winchester.

The monastery was surrendered in 1539 to Henry VIII., who gave the land to Sir Anthony Browne, whose son became Viscount Montague. A year or so later the church "was purchased of the king by the inhabitants of the Borough, Dr. Stephen Gardner, Bishop of Winchester, putting to his helping hand," and converted into "the largest parish church in the kingdom" under the name of St. Saviour's (from the dedication of Bermondsey Abbey, then recently suppressed) for the united parishes of St. Mary Magdalene and St. Margaret-on-the-Hill. In the Lady Chapel, in Mary's reign, Dr. Gardner conducted the trial of Rogers and Hooper, who were lodged meantime in the Compter and in the Clink prison.

In Queen Elizabeth's reign the parish let the chapel, shut off from the aisles and chancel by doorways, to one, Wyat, who used it as a bakehouse. In 1607 Henry Wilson, then tenant of the chapel of the Holy Virgin, applied to remove a tomb, "which was very friendly consented to"! Later still it was used for hog styes, until, in 1642, it was restored to its original condition.

After so much desecration it is, perhaps, not surprising that this marvel of bad taste was allowed to be inscribed on the tomb of Lionel Lockyer, licensed physician and chemist of the time of Charles II.:—

"*Here Lockyer lyes interred, enough his name*
Speaks one hath few competitors in Fame;
A name so great, so general it may scorn
Inscriptions which do vulgar tombs adorn.
A diminution 'tis to write in verse
His eulogies which most men's mouths rehearse.
His virtues and his pills are so well known
That envy can't confine them under stone;
But they'll survive his dust and not expire
Till all things else, at th' universal fire—
This verse is lost—his Pill embalms him safe
To future times without an epitaph."

He deceased April 26, A.D. 1672,
Aged 72.

Nevertheless, his Pilulæ Radiis Solis Extractæ have not survived his vulgar tomb which may still be seen with a crude recumbent effigy of the "famous Empiric" in thick curled wig and furred gown.

Of the dramatists and actors associated with the Elizabethan Bankside, Edmund Shakespeare (brother of William) was buried, in 1607, within the church; as was Philip Henslowe a year later, and John Fletcher (Beaumont's partner) in 1625. Philip Massinger, in 1636, was interred in the churchyard. From the top of the church tower Hollar drew his famous picture map of London. The notorious Dr. Sacheverell was a chaplain of St. Saviour's.

The wooden effigy of a knight, which is said by some to represent either Pont de l'Arche or l'Auncey, but scarcely contemporary with them, survives to the present time. Seymour, writing in 1733, tells us what had happened to it in his day. "Here against the North Wall is placed an antient Figure of a Knight Templar crosslegged in Armour with his Dagger drawn in one Hand and holding the Sheath in the other. It is new painted and flourished up and looks somewhat dreadful"—a not uncommon result of ecclesiastical restorations. "It has been thrown up and down in the church before, and here they have placed it against the Wall upright, whereas it ought to have been laid along as the Effigies of dead Men on their Tombs usually are." Happily the figure is again recumbent and no longer disfigured by garish paintwork.

What happened to the church in the 18th Century is best told in the words of Mrs. Boger: "In 1703 Bishop Fox's fine altar screen was encased with oak

columns, painted commandments, and other tables, whole-length portraits of Moses and Aaron, flying Cherubim, etc. The ancient stalls were removed, pews were erected, and the cathedral character of the church entirely destroyed. As early as 1618 the fine uninterrupted view of the nave and choir was spoilt by an organ screen set up at the west end of the choir in place of the ancient rood loft. In 1621—22 the greater part of the west front and north side was coated with brick. The church was now neglected till 1734, when considerable repairs were executed in the nave, and the stonework was cased with barbarous brick, as was the south transept in 1735 when, doubtless, the elegant rose-window was destroyed, as well as some of the most beautiful features in the moulded tracery of the six east and west front windows of the time of Edward III., or perhaps somewhat earlier. Probably about the same time the northern front of the north transept was removed, and timber framework covered with tiles put up as a substitute."—(*Southwark and its Story.*)

Briefly, to complete the story of the fabric, the "Bishop's Chapel," an eastward excrescence dating only from the time of Bishop Andrewes (d. 1620), was removed in 1830. When the southern approach to new London Bridge was made in 1835, the houses eastward of the church, which had hitherto screened it from the roadway, were pulled down, and the Lady Chapel itself narrowly escaped demolition; the nave which had long been in a ruinous condition was taken down three years later, and a new one put up which has in its turn been rebuilt.

The south transept contains a couple of mural tablets which were transferred hither in 1901, when St. Thomas's Church was converted into a Chapter House. One commemorates Thomas Cole, Treasurer of St. Thomas's Hospital, who died in 1715. The other is to *Carolus Joye, valetudinariorum quaestor* to the two hospitals. The inscription continues: "heic depositus in sacellum Guianum mox aedificandum quam proxime Fundatorem transferendus." As the inscription upon his tomb in our chapel crypt says: "The body of Charles Joye, Esq., Treasurer of St. Thomas' and Guy's Hospital, who died December 20th, 1737, aged 67 years. To be removed into Guy's Chapel when Built and Lay'd as near as possible may be to the body of the Founder."

We have, perhaps, to thank the barbarism of the 18th century in covering up Bishop Fox's screen with the Moses, Aaron, and Cherubim absurdities, for the good state of preservation in which it has come down to us. Considered apart from the very mediocre modern statuary that here and there occupies the niches, the reredos has so much in common with the altar screen of Winchester Cathedral that it appears almost certain that both are the work of the same designer. The distinctive features of the Southwark screen are grotesque carvings in the spandrels of men chasing *foxes* and other animals, and between them a fool with a bauble.

It is the "fascia" with its paschal lambs and pelicans that so strongly suggests a common origin with the Winchester screen, for the "pelican-in-her-piety" was the personal cognisance of Bishop Fox. It is seen elsewhere in St. Saviour's among the carved wooden bosses from the groining in the nave, now stacked in the north transept. We have already seen in the Borough how the written word (*aere perennius*) has proved more resistent to the wear-and-tear of time than the masonry that supported it, and it may be that the sign of "The Pelican" in Southwark Street is an inheritance from an earlier inn associated with this bishop. There appears, in 1688, to have been a "Pelican" in the Carter or Kater Lane, which "extended from the hospital wall to the back of the Walnut Tree Inn" in Tooley Street.

Perhaps, too, it was this altar screen that influenced John Bacon, R.A., himself a Southwark man, when he introduced into the central medallion of the pediment of our hospital front the "pelican-in-her-piety." The mediæval fabulist conceived the pelican as prone, in times of scarcity, to nourish her young upon the blood from a self-inflicted wound in her breast. Alas for sentiment, that modern observers should contend that the apparent wound was but the heightened colour normally occuring at the end of the pelican's bill!

John Gower died in 1402, two years after his contemporary Chaucer, whose friendship he had enjoyed from the days when they were neighbours, in residence in the Middle and Inner Temples. His monument in St. Saviour's, which was restored in 1832 by Lord Francis Leveson Gower (afterwards Lord Sutherland), again requires attention, for the figures in the pointed niches, representing Charity, Mercy, and Pity, entwined with scrolls bearing the prayers in old French, have quite disappeared. The stone effigy above remains, however. Gower is represented attired in a purple gown, with a chaplet of roses around his head and a collar of S S about his neck. His head is supported by three folio volumes inscribed with the names of his works, the Vox Clamantis, Speculum Meditantis, and Confessio Amantis. His feet rest upon a lion, and above them, suspended from his crest, is a shield bearing his coat of arms. Gower was no knight, and so in the place of a helmet, is "an ancient French chapeau, turned up with ermine, bearing upon it the crest, *a talbot, sejant, proper.*"

Perhaps this crest was in the mind of the 17th century proprietor of the "Tabard" when he discarded the old sign.

The shield is *argent, on a chevron azure, three leopards' heads or, langued gules.* Stowe adds to this blazon the supporters (not represented on the monument) *two angels.* These armorial bearings are worthy of notice, for in them are nearly all the charges (necessarily changed as regards metal and tincture) which figure in the grant of arms made to Thomas Guy, in 1724, for his new institution. Is it too fantastic to imagine that Guy's advisers were influenced by the armorial bearings of a mediæval poet without descendants, in the neighbouring parish church, in devising his achievement? Only the *fleur-de-lys* which displaced the leopards' heads from the chevron to the field remain to be accounted for.

The new crest adoped was, appropriately enough, the figure of Charity, who has not yet found time to cover her multitude of little sinners.

(*To be continued.*)

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

"The Scandal of our Hospitals."

DEAR SIR,—The Hospital System is not infrequently censured as being maintained as much for the educational uses of the rising medical generation as for the good of its patients. The assertion is probably true: but it may be doubted whether the evil, if evil it be, is not also a necessary evil.

Mr. Pearkes Withers—writing in the July issue of a certain periodical—offers some interesting opinions on the question, and is not sparing in his complaints against the present system.

The Hospital, according to his view, "undoubtedly endeavours to cure, but before all things it is determined to teach, and in teaching takes the meanest advantage of poverty." This is a very grave charge, and it is worth considering what are the "mean advantages" Mr. Withers has in mind.

First and foremost seems to be the fact that medical students are present at, and take part in, the examination of patients. He argues that the more wealthy patients are examined privately: and that patients in hospital should have the same privilege. The poor are, he says, the guests of the hospital: "the money that rolls into the coffers of the institution is not vastly different, in essentials, from the fee paid by a Park Lane host for medical attendance on one of his guests."

> "It is all very well to argue that the doctors of a future generation must be trained. Undoubtedly they must, but not under the cloak of ministration to the sick. Their education, to put it in plain language, must not be obtained under false pretences. It is for the patients to decide whether or not they shall be mauled about by incompetent youngsters. American hospitals cheerfully pay men and women, during life, for the possession of physical abnormalities after death; let the British hospitals *buy* the use of an abnormal condition of the body while that condition exists. If it is of value it is worth money; but let the patient decide whether he will sell or not."

We are, then, to imagine a medical school existing for its instruction on cases it can *buy*: doubtless a sliding scale of charges could be established—a few pence for a cut finger up to pounds for what Mr. Withers calls an "interesting case." Not only this but—if we do not mistake him—such a medical school would not be maintained by charity: and therefore, necessarily, by the students' fees. We wonder whether Mr. Withers's experience has given him any knowledge of the expenses of the medical education: they would be doubled or trebled in such an institution.

Secondly, we are asked to be scandalised by the "Agony Wait" of the Out-Patients. The obvious reply that if their time is so precious, and they resent the fact that a hard-worked staff can only treat them one by one, they must go to their own doctors is met by the rather ingenuous statement—

> "Indeed, it would be infinitely cheaper for many of them to consult the cheap doctors that abound in working-class districts—cheaper and more satisfactory too. But the hospital, with its promises of skilled attention and marvellous cures, with its deceitful air of inexpensiveness, lures them on, to fritter away their time and to be reminded at every tick and turn that they are receiving favours which they in no way deserve."

Next we are to deplore a falling off on the part of the doctor from his usual bedside manner in dealing with his hospital charges. The sympathetic doctor with gentle voice, together with the sisters and porters (!) are harsh: the following incident being recorded.

> "'That old stump must come out!' This, in a harsh, brutal tone, was what a doctor told a sweet-faced old lady concerning the one eye that was left to her, and it is quite a mild example of the average 'gentleness' of the average doctor in the average hospital."

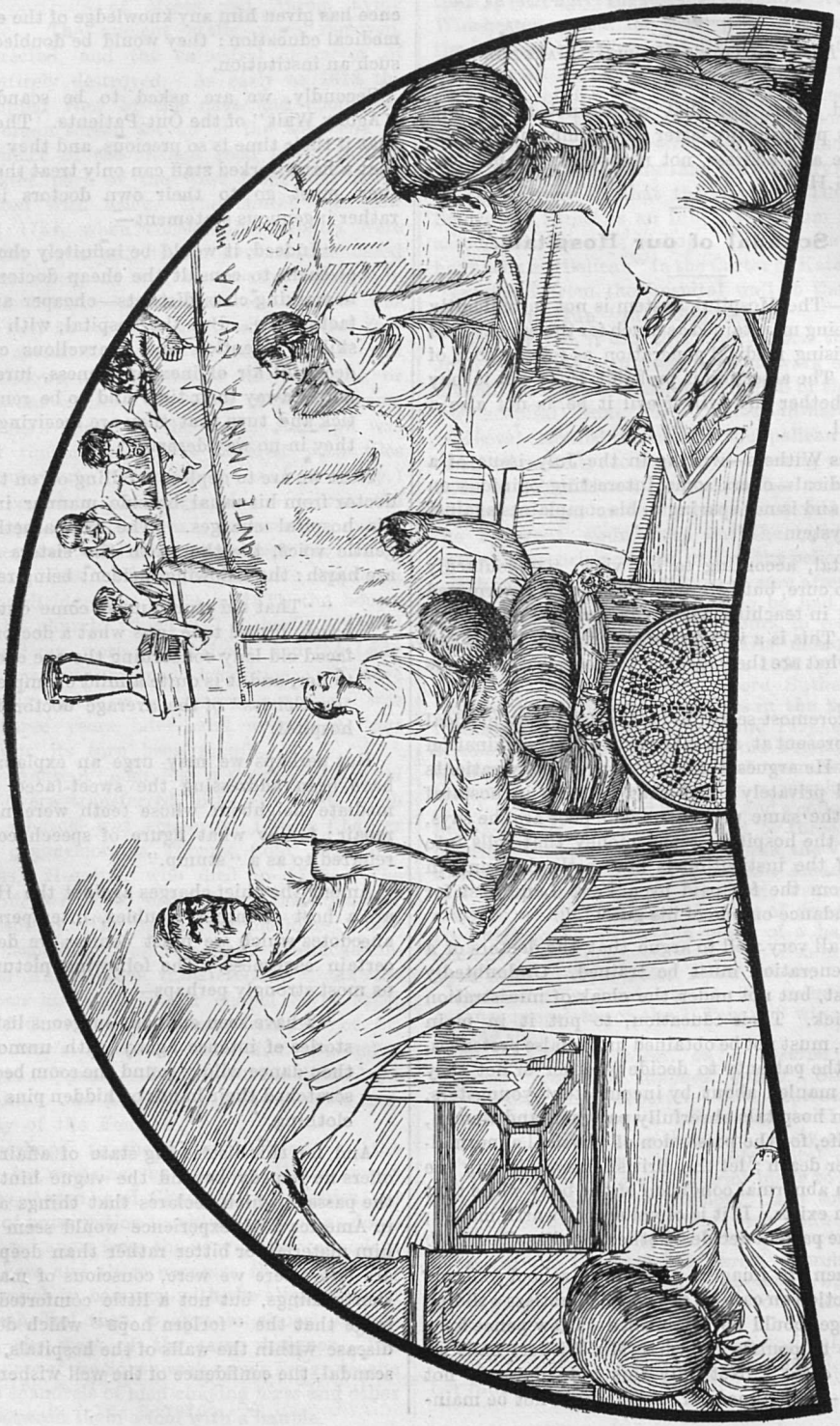
But perhaps we may urge an explanation: he may have been addressing the sweet-faced old lady's immediate neighbour whose teeth were not in the best repair; for by what figure of speech could an eye be referred to as a "stump."

Among the chief charges against the Hospital system are a host of minor troubles, interspersed with small anecdotes which we must confess we devoured with a certain eagerness. The following picture appealed to us most strongly perhaps—

> "I have seen eminent surgeons listen to women's stories of intense agony with unmoved faces, and then dance wildly round the room because they have scratched their hands on hidden pins in the women's clothing."

And for this distressing state of affairs Mr. Withers offers no remedy beyond the vague hints contained in the passage which declares that things are done better in America: his experience would seem to have given him material for bitter rather than deep thought. We are left where we were, conscious of many defects and shortcomings, but not a little comforted by the knowledge that the "forlorn hope" which does better with disease within the walls of the hospitals, has, in spite of scandal, the confidence of the well-wishers of the race.

F. G. L. S.


ANTE OMNIA
CURA

Caseous Mediastinal Glands.

CLINICAL LECTURE BY Dr. CAMERON.

Gentlemen,—Everyone must have noticed with what great frequency we meet in the post-mortem room with children who have died with tuberculosis of the mediastinal lymph glands. In death from general miliary tuberculosis, tuberculous meningitis, tubercuIous broncho-pneumonia and tabes mesenterica, it is rare to find that the bronchial glands have escaped and, more than that, in most cases the appearance of the glands is such as to suggest that they represent the oldest focus of infection in the body. You know how sharp a controversy has been carried on recently as to whether this is really so or not, and that a good deal of evidence has been brought forward to show that these glands are not invariably, or even usually, the part first involved, and that infection by the alimentary tract occurs more commonly than infection by the respiratory tract. In any case tuberculosis of the bronchial glands is so common that it is worth while to consider at length how we may try to detect the condition during life. I say how we may *try* to detect the condition, because it is well to realise at once that however careful and thorough our examination may be, we shall only succeed in a minority of cases in making a confident diagnosis, and that though many physical signs and symptoms of the condition may be described, yet the signs and symptoms which are most characteristic are present only in a small proportion of the cases and are therefore only exceptionally of value. Whenever we find a very long list of physical signs attached to any one condition, as a general rule we find that no one of them is very constant or of great service. You know how many signs of adhesion of the layers of the pericardium have been described and yet how difficult the diagnosis remains, and how often the condition is disclosed unsuspected at a post-mortem examination. The same uncertainty must often remain in cases of tuberculosis of the mediastinal glands. No doubt the X-rays will often come to our aid, although, even with the most expert examination, the shadow cast by the affected glands is sometimes indefinite or indistinguishable.

Consider first a few points in the history which we are likely to obtain from the child's mother. The age limits are tolerably well defined. The condition is rarely met with during the first year of life. Why this should be so is not very clear. Those who believe that in most cases infection is by the alimentary canal are apt to assume that the explanation is in the large percentage of infants who are nursed at the breast or are fed upon foods other than cow's milk. Possibly the comparative isolation of an infant in arms from sources of infection is to some extent responsible. Not until the infant is a year old is he at liberty to crawl into the outer world, among the dust and refuse of rooms, courts, and streets, grasping at every object he meets and conveying as many as possible to his mouth for further investigation with teeth and gums.

In many cases in which I have suspected or found tuberculosis in infancy, enquiry has shown the presence of active tuberculosis among the parents or other inmates of the house,—a father possibly, expectorating freely at the doorway around which the child must play, or a mother, far gone in consumption, whose handkerchief does duty both for herself and for the child. Enquiries of this sort will often put one in the way of making a correct diagnosis. The discovery of such a source of infection is of much more value than a history of past tuberculosis in the family.

With the beginning of the second year of life the curve of the number of cases met with rises sharply to a maximum and thereafter declines slowly throughout the rest of childhood. In this hospital a very large proportion, about 30 per cent., of the post-mortem examinations upon children between the ages of one and six show caseation of the mediastinal glands.

Very often the development of tuberculosis is preceded by some one or other of the infectious diseases, especially by measles and by whooping cough, both of which may be accompanied by much bronchial catarrh and by a chronic

enlargement and congestion of the bronchial glands.

If, then, we are confronted with a child, who is ailing in an indefinite way, whose weight is stationary and who is pale and irritable, restless, yet easily tired, and, if on enquiry, the condition followed upon an attack of measles or bronchitis, still more if among the household there is evidence of active tuberculosis, it is very likely that we are dealing with a case of tuberculosis of glands.

Consider next the general appearance of the child. Sometimes the aspect of the child is that for which the old word scrophulous is still used. Under the name scrophula were grouped formerly the various forms of chronic infections of glands, bones, joints, and skin which have long since been proved to be due to the tubercle bacillus, and, although the identity of scrophula with tubercle is no longer in dispute, the name may very well be retained to indicate this particular form of tuberculous infection. Long ago too much was written of the scrophulous diathesis, the mark of which was the possession of a certain physiognomy, with thick prominent lips, red eyelids, glandular swellings and a harsh dry skin. With a greater knowledge of the pathology of infection we now understand more clearly that the facial aspect of these unhealthy and often neglected children is the result of long continued chronic catarrhal processes, encouraged by their unhealthy surroundings and mode of life, and, perhaps, occasioned by a congenital or acquired lowering of resistance to infections of all sorts. The sore eyes, the unhealthy skin, and the thick lips are not due to tubercle and are not even marks of inherited predisposition to tubercle, but they are valuable evidence of a susceptibility to all forms of infections, tubercle among the rest.

Let us examine these appearances of so called scrophula a little more closely, because not a few of the children who develop caseous mediastinal glands will show them in marked degree.

On the same day at Out-Patients three children came to me, each with his head bent down to avoid the light, with puckered forehead and hands held before his eyes. In each case the eye was streaming with tears and the suffused conjunctiva was the seat of a little phlyctenular ulcer. I do not know what became of two of these children, as so often happens they ceased to attend, but the third, five months later, developed tuberculosis of the mesenteric glands. Among these unhealthy and susceptible children conjunctivitis is very common. During the acute attack there is marked photophobia and blepharospasm, so that any attempt to open the eyelids is strenuously resisted. With repeated attacks the excessive lachrymation so irritates the eyelids that they become eczematous and ulcerated, and when this heals a certain amount of puckering may be left behind. Often over the site of the corneal ulcer a little spot of opacity persists for a long time, and affords evidence of a former attack. Some of you may remember a child who was in Esther recently with a large patch of tuberculous ulceration of the skin, who showed such evidence of old ulceration in both eyes.

In other cases the child suffers from a continuous and extremely obstinate cold in the head. The nostrils become incrustated with secretion, which is often very copious and of an unusually irritating character, so that the whole upper lip becomes infiltrated and thickened. Sometimes the infiltration is so extensive that the lip cracks and a painful fissure which may refuse to heal for months at a time is the result. The reddened puckered eyes and the thick prominent lips, together with the glandular swelling in the neck, explain the derivation of the word scrophula (scropha = a young pig).

As a result of the chronic inflammation in the nose and naso-pharynx the lymphoid tissue becomes swollen and hypertrophied, enlarged tonsils and adenoids are common, and the glands in the neck become palpable. Deafness and otitis media is a further complication which is extremely common. Often, too, without otitis media there is an acute eczematous inflammation of the skin lining the meatus of the ear, from which there is profuse purulent discharge. The dermatitis, which may at first be confined to the region of the meatus, or to the eyelids or upper lip and nose, is apt to spread and give rise to an impetiginous eczema

of the whole face and scalp. Lastly, it is not uncommon to find evidence of susceptibility to infection in inflammation of the sebaceous follicles of the skin over the extremities, especially over the legs. The feet are often blue and cold, the skin is harsh and dry, and scattered over it are reddened points situated at the mouths of the follicles, in all stages of inflammation and cicatrisation. In other cases the so-called lichen scrophulosorum may be present. While it is probable that none of these various appearances are due to the tubercle bacillus, they may be taken to indicate an increased susceptibility to invasion. In other cases examination may show the presence of undoubted tuberculous lesions in other parts of the body. Tuberculous disease of bones or joints, lupus, or a tuberculous lesion of the skin may be found.

The remaining glands in the body should be examined, the cervical and mesenteric glands especially. In rare instances one of the little glands which lie on the lateral aspect of the thorax in the mid-axillary glands may be enlarged and palpable. Enlargement of the spleen is not infrequent, but such enlargement is met with in too many other conditions for its presence to be very useful in diagnosis.

Where active caseation is in progress an interesting condition of the skin may be found which has recently attracted considerable attention. Upon the trunk or limbs there may appear sudden crops of tiny red papules, each of which shows a crater-like central depression and a surrounding raised margin. The lesion has been called a papulo-necrotic tuberculide—a name which indicates its character well. The cup-shaped depression in the centre of each tiny papule is due to the necrotic changes which it rapidly undergoes. Whether the lesion is the direct result of the tubercle bacillus is not yet settled. More probably it is due to the passage into the circulation of toxins formed in the process of caseation. I watched a well-marked case for some time, and had it admitted to Clinical. Unfortunately, as not infrequently happens in cases in which caseation is very active, a transient erythematous rash appeared, which was very like German measles, upon the child's body, and in my absence he was sent home, where he died three weeks later.

Although not all children with tuberculosis of mediastinal glands are of scrophulous appearance, and though still fewer will show evidence of tubercle elsewhere, we should not omit to examine for all these conditions, the presence of any one of which may give strong support to the diagnosis.

When scrophula is present the development of measles or whooping cough is especially to be dreaded.

The symptoms.—Only a few of the symptoms can be regarded as characteristic. As a rule the child gradually falls into ill-health, becoming daily paler, more irritable, and more easily tired. The temperature may be irregularly raised or fever may be absent throughout.

The most characteristic symptom is, perhaps, the cough, which is apt to occur in long-continued paroxysms. Between each paroxysm hours may elapse, so that the resemblance to whooping cough may be close. Vomiting may occur, but is less constant than in whooping cough, the expectoration of stringy mucus is not seen, and the nightly exacerbation of whooping cough is less usual. The cough may have a clanging note, resembling that due to aneurysm in adults. A well-marked whoop is not present. The cough is probably due to the pressure of the enlarged glands upon the vagus. More seldom there is pressure upon the œsophagus, so that dysphagia results. Where there is direct pressure upon the trachea, as happens sometimes, especially in very young children, the appearances are very suggestive of a paroxysm of spasmodic asthma; that is to say, there is pronounced dyspnœa and the difficulty of respiration is entirely expiratory. Pressure upon the innominate veins in the anterior mediastinum sometimes gives rise to enlargement of a group of veins, usually in a situation between the right margin of the sternum and the right clavicle, and in severe cases to cyanosis and even œdema of the neck and face. Because the chests of many children with delicate skins are covered with a tracery

of fine veins, which are quite without significance, one must be sure that the enlargement of the veins is local and progressive. I have twice lately watched the development of a group of veins below the right clavicle in children convalescent from measles in Isolation Ward, and on both occasions the explanation was found post-mortem in a mass of caseous glands in the anterior mediastinum situated unusually far forward. Cough, paroxysmal dyspnœa, dysphagia, enlargement of veins, œdema, and cyanosis—I know of no other characteristic symptoms to which the condition may give rise.

Physical signs.—If symptoms are inconstant and vague, physical signs are equally disappointing. Perhaps the most helpful sign is produced by direct light percussion of the spinous processes of the dorsal vertebræ, while the child is held in a sitting posture, with head bent forward and the mouth closed. Normally, to light percussion, the note over the first four dorsal vertebral spines is relatively dull; the sixth and seventh spines are resonant. In the presence of a large mass in the posterior mediastinum around the bifurcation of the trachea, the note over the sixth and seventh spines may be impaired. Auscultation on either side of these spines in the mid scapular region may show breathing more bronchial in character on one side than on the other, but where the lung is not involved, as a rule auscultation yields no information. Dulness to percussion or impaired resonance is very rarely to be obtained in the inner part of the second intercostal space in front, more frequently on the right side than on the left. Palpation is, perhaps, more valuable. The area just above the clavicles and the supra-sternal fossa—by sinking the finger deeply between the heads of the sterno-mastoid muscles—should be carefully examined in this way. A little experience in the post-mortem room will show how frequently the uppermost of a chain of enlarged and caseous glands extends upwards from the mediastinum into the neck; sometimes too, there will be present, the signs of pressure upon a bronchus, usually upon the right bronchus. I have often heard Dr. Fawcett in the post-mortem room point out how much more frequently the glands around the right bronchus and its main divisions are enlarged than the corresponding glands on the left side, and a great many statistics have been published to show the same thing.

The signs of pressure will not differ from those of pressure upon a bronchus from other causes. Presumably at times there may be over-distension of the lung, producing a note of increased tympanitic resonance, and diminution of the breath sounds; more often the note is impaired, and the breath and voice sounds absent or diminished over one whole lobe, so that the condition resembles that caused by a pleuritic effusion.

Lastly, there is a sign of some value which has been called after its discoverer, the Eustace Smith bruit. In a child with enlarged bronchial glands standing or sitting with the head bent backwards to the fullest extent, a loud systolic bruit will be heard at the base of the heart just below the clavicles. Dr. Eustace Smith explains the bruit upon the assumption that by bending back the head, the trachea and the enlarged glands are carried forward so as to press upon the left innominate vein. There are cases in which this sign is very well marked and characteristic, but on the other a hæmic bruit in the pulmonary area is commonly enough met with in the examination of anæmic and ailing children without its being due to pressure upon veins by a mass of glands, and such a hæmic bruit is frequently enough influenced by changes of posture. No doubt when some other symptom or sign is present, enlargement of veins or paroxysmal attacks of coughing, the presence of a well-marked bruit of the kind described is valuable confirmatory evidence. Standing alone, in most cases it does not warrant a positive conclusion.

With an infection so common and with so little upon which to base a diagnosis, it is natural that it should frequently happen that our suspicions are needlessly aroused and the child returns again to complete health. In only a few of such cases has repair taken place, and recovery ensued. In the vast majority we may take it that our fears were not justified. Occasionally, on the other hand, our suspicions are confirmed. Acute general miliary tuberculosis,

tuberculous meningitis, tuberculous bronchopneumonia, rapidly developed proves that we were right. Sometimes, perhaps more commonly in infants than in older children, the glands soften and suppurate. In that case they may discharge their contents into the trachea, a main bronchus, the œsophagus, the pericardium, or a pleural cavity. Sometimes the abscess even points from the mediastinum to the chest wall. In most of these accidents death ensues almost at once.

Some further help is afforded to us by means of the X-rays and by Von Pirquet's cutaneous reaction, and neither should be omitted if there is reasonable suspicion. I need hardly describe the method of procedure in the latter; it is so familiar to you all. It is important to make only the tiniest abrasion of the skin. I am frequently asked to see a test in which the scarification has been so thoroughly done that after many days the control is still well able to compete with the site of inoculation in the severity of the lesions produced. The lesions should be so minute that after 48 hours the control should have practically disappeared, leaving the point of inoculation alone visible. A test which remains negative after it has been twice performed with an interval of a week or ten days is valuable evidence against the diagnosis. A positive test is of much greater value in infancy than in later childhood.

Pass List.

Cambridge University.

The following degrees have been conferred:—

M.B., B.C. A. M. Bodkin.
B.C. J. M. Jarvie.

London School of Tropical Medicine.

The following were successful at the recent examination:—

N. A. Dyce Sharp.
A. D. J. B. Williams.

Chronic Appendicitis (Appendix Dyspepsia) simulating Gastric, Duodenal, or Gall-bladder Disease.

BY R. P. ROWLANDS.

ALL surgeons of experience know that the appendix is often found to be diseased when the abdomen has been opened for supposed gastric or other disease, and that the removal of the appendix under these circumstances is often followed by complete recovery. In some of my earlier cases the recovery has stood the test of some years. Sir Berkeley Moynihan in his graphic way drew special attention to this matter, and coined a new name, "appendix dyspepsia."

This name is not a perfect one, and "chronic appendicitis" is better from a pathological point of view, but "appendix dyspepsia" draws attention to the difficulty of diagnosis, and is, therefore, a *valuable* addition. Increasing surgical experience of abdominal disease teaches us to forget a good deal of the false impressions derived from examination of the dead body. A surgeon with eyes to see has amazing opportunities of seeing disease in progress, whereas the pathologist sees only the sadly altered end products. More than half the information to be derived from an examination of the appendix is lost for ever when the appendix is removed. Adhesions, contracting mesentery, and kinking are all spoilt in the removal. Apart from this it is remarkable how little change may be found in the appendix in the intervals of even quite acute appendicitis. Slight obstructions, adhesions, or fæcoliths are capable of creating a great deal of misery and "indigestion." It needs the microscope to reveal the full extent of chronic disease in some cases.

The diagnosis of "indigestion" is getting less and less common, for accurate study and observation of symptoms and signs and thorough abdominal exploration proves "indigestion" so often due to some definite disease, especially of the stomach, gall-bladder, or appendix.

The most important point I wish to emphasize is that although an accurate diagnosis can be made in a great many cases before the abdomen is opened, absolute certainty can be attained only by a thorough exploration of the abdomen. Therefore, *abdominal operations should practically always start as explorations.* Fortunately the peritoneum allows this to be done in a few minutes, and without additional risk in the great majority of cases. A notable exception is to be found in peritonitis due to appendicitis more or less localised to the lower abdomen, and a diseased appendix has been found, where it is neither necessary nor wise to examine the upper abdomen.

Moynihan has drawn special attention to the importance of seeking a diseased appendix when an exploration for gastric disease proves negative. The cases quoted below show the great importance of bearing this always in mind. It is just as important to examine the upper abdomen when operating in the quiescent period for supposed appendicitis, for it is not at all uncommon to find the disease in the gall bladder or duodenum.

I have operated on three patients for duodenal ulcer whose symptoms had remained unrelieved by the removal of the appendix elsewhere through an incision too small for adequate exploration of the abdomen. In two of these, stenosis of the duodenum had developed after some years, and X-ray examination of the stomach proved the obstruction. As far as I know no one has laid stress on the liability to this mistake. Yet, it can hardly be uncommon, else I could not have come across three instances of it within the last two years. The possibility of it is sufficient to condemn the too common practice of removing the appendix through a very small incision.

Further, in many cases disease of several of the abdominal viscera may co-exist and even be dependent on each other; for instance, it is a matter of common experience that the appendix is frequently diseased in cases of gastric or duodenal ulcer; it may even be the primary source of sepsis. We know that chronic appendicitis profoundly alters the functions of the stomach and intestines and lowers the general vitality by interfering with feeding and digestion.

Again, it is not uncommon to find disease of the appendix and gall bladder co-existing. The common association of disease of the right ovary with appendicitis is too well known to need further mention. In these cases inadequate exploration fails to reveal the whole disease, and, perhaps, even the most important part of it. The operation is naturally followed by incomplete relief, and perhaps by a secondary operation unless the patient is labelled as a neurotic.

Most of the failures of gastro-enterostomy are due to errors of diagnosis from inadequate exploration. The atonic dilatation of the stomach so often associated with chronic appendicitis and malnutrition was mistaken for the real disease.

To sum up, abdominal operations should commence as quick but adequate explorations. Small incisions and parochial views are out of place in abdominal surgery.

CASE 1.—*Chronic appendicitis simulating gastric ulcer.*—Female, aged 30, has had indigestion since she was 14, and on four occasions she has had hæmatemesis. She has been laid up on many occasions for about six or seven weeks at a time, and has been treated at two country hospitals for months, being dieted and even treated by rectal feeding. She frequently vomited after taking any solid food. The diagnosis has always been "gastric ulcer." As she was getting worse, she was sent to me at Guy's for operation upon the stomach in April, 1912. Examination with the X-rays negatived obstruction at the pylorus, but the stomach was low and rather dilated. There was tenderness over the epigastrium and also over the right iliac fossa.

The abdomen was opened through the middle of the right rectus. The stomach, intestines, pancreas, pelvic viscera, and biliary apparatus were all normal except for a slight dilatation and dropping of the stomach, and an appendix which contained a calculus and was in a state of chronic inflammation with shortening of its mesentery. Since the operation the patient's health has improved a great deal. She was on full diet within a week, and she has been able to continue on this ever since without interruption, and without pain or sickness.

CASE 2.—*Appendix dyspepsia simulating gall bladder disease.*—Woman, aged 45. The patient has suffered a good deal from pain in the abdomen, difficulty in taking food, and much wasting. She has also had a lump in the right side of the abdomen near the liver, which was tender, and it was thought that she had enlargement of the gall bladder probably due to stones, with possibly growth of the gall-bladder. I was asked to explore, but the prospect did not seem hopeful.

Operation on April 14th, 1912, at a cottage hospital. When the patient was under the anæsthetic, the swelling in the right hypochondrium was found to be very movable. It could be pushed into the left iliac fossa and also into the left lumbar region. It was firm and oval, and was thought to be the right kidney. The urine and the act of micturition were normal. On opening the abdomen through the right rectus, the swelling proved to be the right kidney, freely movable, not enlarged, and not having a mesentery. The left kidney was also unduly movable. The stomach and duodenum were unusually low and movable, and the duodenum could easily be brought out into the wound in its front and second parts. There was no sign of an ulcer in the duodenum or stomach, and there was no pyloric obstruction. The pelvic viscera were normal except that the uterus was rather large. The appendix was lying in Morison's pouch close to the liver. It was very long and coiled. There was a narrowing near the end of it, with an enlargement beyond. The mesentery was drawn over the tip. The appendix was therefore removed. On cutting into the appendix afterwards it was found to contain pus in two places: (1) at the tip, and (2) at its middle. There were also very small calculi in these situations. The patient made a rapid and excellent recovery. She was soon able to take full diet.

CASE 3.—*Chronic appendicitis simulating duodenal ulcer. Operation. Recovery.*—Man, aged 51, soldier, was sent to me at Guy's with the following letter:—

"This man has had symptoms of stomach trouble for some weeks. Apparently there is some obstruction at the pylorus. He is losing weight, and in view of his age it seems to me there may be some malignant trouble. I should be much obliged if you could do anything for him." The man had been unable to work for four months. He complained of pain in the duodenal region coming two or three hours after food, and he was tender in this region. He frequently vomited, and had hæmatemesis once. Melæna was not noticed. The rectus was rigid at its upper part. I suggested a diagnosis of duodenal ulcer, and recommended complete rest in bed on a careful diet. He did not improve, however, but got worse, and he was admitted for exploration a fortnight later.

The stomach was examined with the X-rays, with a negative result. On examining him carefully in the ward afterwards I noticed that his tenderness was most marked under the middle of the right rectus, considerably higher than the usual position of the appendix. There was no tenderness or pain in this region when I saw him at Out-Patients a fortnight earlier. The temperature was normal. There was also tenderness in the epigastrium. I had considerable doubt in my mind as to what I should find, but I thought it advisable to explore, thinking I should probably find a duodenal ulcer, or a chronically inflamed retro-colic appendix, or both.

Operation.—The stomach and duodenum were normal, the biliary apparatus and the pancreas were also natural. The appendix was adherent, kinked, and very long, lying behind and rather to the outer side of the cæcum and ascending colon. It was distended, and its terminal part was subacutely inflamed. It was removed and afterwards found to be full of pus. After a few days the patient was able to take full diet with comfort and evident enjoyment, and the general health is rapidly improving.

Case 4.—*Chronic appendicitis simulating chronic gastric ulcer. ? Hour-glass contraction.*—A spinster, aged 50, was sent into Dorcas under my care last summer with a diagnosis of hour-glass contraction of the stomach because she could only take very small quantities of food at a time, and was very thin. She had had indigestion for many years and had wasted a great deal, so that the doctor's diagnosis seemed a probable one. She was also anæmic, and complained of vomiting after taking anything more than the lightest food.

X-ray examination showed the stomach to be depressed, but otherwise normal. The patient improved a good deal while at rest in hospital, and she was able to take full diet before she left. This improvement was not maintained, and the doctor asked me to re-admit her in May, 1912. She was then thinner and more anæmic, and looked very miserable. There was some tenderness in the right iliac region.

Operation.—The stomach and duodenum were normal, except that the stomach was rather lower than usual. There was no ulceration or obstruction. The gall bladder and its ducts, pancreas, and intestines were normal, but there was a large subperitoneal fibroid growing from the top and back of the uterus towards the left side. It was the size of a fist, and may have been a cause of sickness and pain. In addition to this the appendix was in a state of chronic inflammation. Its terminal inch was contracted, hard, and had no lumen. At the middle it was distended with mucus, and at its base it was constricted. Its mesentery was drawn over the tip by chronic inflammation, and there was a large scar on the meso-appendix one inch from the end. It was thought that the disease of the appendix was the chief cause of the dyspepsia and pain.

Case 5.—*Chronic appendicitis. Gastro-enterostomy. Nephrorrhaphy. Appendicular abscess. Pericarditis. Death.*—A very thin man, aged 60 years, gave a history of indigestion with frequent vomiting for many years. Seven years ago dilatation of the stomach was diagnosed, and gastro-enterostomy was advised. The patient was afterwards told that no ulcer was found, only a dilated stomach, but gastro-enterostomy was performed. It was apparently thought that mobility of the right kidney was a cause of the dilatation of the stomach, for this kidney was fixed up the same day. The indigestion did not abate; the old pains and vomiting persisted. Anything beyond milk, milk puddings, beef-tea, and Benger's food caused pain and vomiting. The patient thought the food dropped to the lower part of the stomach, which he believed to be near the pubis. He thought the pain in this region following all solid food was due to the irritation of the stomach. The pain was often colicky in nature, often passing in a few minutes, but at times it laid him up for days. He had at least two attacks suggestive of acute appendicitis, and his doctor suggested the removal of the appendix during the quiescent period. When he was away from home on his holiday he had an acute attack of pain in the abdomen associated with vomiting. This followed a small meal of veal and ham which was not intended for the patient, only he fancied it, and could not resist the temptation. Next day the pain was better, but about thirty-six hours from the onset it became worse, and he sent for a doctor; the abdomen was then rigid and tender. When I saw him twelve hours later he was much better, and his abdomen was supple. It was thought wise to defer operation until a quiet period. A few days later an abscess formed and was opened, the appendix being easily removed at the same time. The appendix was unusually high up, and lying on the outer side of the ascending colon. Pericarditis developed two days later, and the patient died.

On the Importance of Studying the Signs of Death.

ENGROSSED as we are with the problems of disease, we are apt to take the occurrence of apparent death as forming an abrupt conclusion to our studies. We fill up the death certificate which calls upon us to notify the cause of death, but the reality of death is taken for granted.

There are, of course, very few occasions which leave any room for doubt as to such reality, but yet there are reasons which may fairly be said to suggest the desirability of considering the fact of death as a matter deserving more attention than it receives at present. Premature burial is, of course, a consideration which is always present to the mind of the lay public, but the medical profession are well aware that the risks of this are practically absent, and the plea for more definite study of the proofs of death is not to be taken for an admission that at the present day, in this country, live burial is a recognised fact demanding new legislation. Fresh legislation in this direction is, however, likely to be forthcoming before long.

Formal certification of the fact of still birth is surely desirable, and is likely to be made compulsory. Probably also the present official death certificate in cases of ordinary death will be made a more stringent affair than it is at present. The Cremation Society has already set a good example by its insistence on the signatures (to separate forms) of two medical men before the cremation can be carried out.

But apart from possible or desirable legislative requirements there are even now in the daily life of the practitioner occasions which may demand that he should attend to the question of the fact of death rather than to that of its cause. On the battle-field the army surgeon may be faced with the difficulty of deciding whether a recently-injured man is dead or alive. Shall he be left on the field or removed by the ambulance? In civil practice, cases of drowning, or rather of apparent death from drowning, may raise a similar problem. Shall we persevere with artificial respiration or desist?

To the family practitioner there will not unfrequently occur occasions on which he will have to give an opinion on the fact of death when the cause of death has not been disputed. A person recently dead is found to have left in his will a request for some special precautions to be taken to make sure of his death, or the relations of the deceased request the doctor to apply some special test or examination to make assurance doubly sure. Generally they will ask you "to open a vein," or, perhaps still more commonly, the practitioner may be called on (if he be the holder of a State medical appointment or if he be on the staff of a public hospital) to satisfy by his independent examination of the body the requirements of the Cremation Society.

It is worth while to note that it often happens that examinations of this kind must be made at short notice and under inconvenient circumstances which do not allow of a very extensive inspection of the body or of the application of elaborate tests. The request "to open a vein" had better be disregarded. Even in life it is not always so easy as it sounds to open a vein in a stout patient or a young child. A better plan is to make a deep and short incision down upon the brachial or radial artery. If the heart has not ceased to beat there will, of course, be a discontinuous flow. If the elasticity of the artery still counts for anything there may be a little continuous flow. If death is already well established there will be no real flow of blood. Another test easily applied is the old one which consists in tying a string round the finger and noting whether the finger swells on the distal side of the ligature. The test by incision, it may be remarked, has the advantage of affording another proof, viz., the condition of the skin when cut. The loss of elasticity of the skin makes the appearance of a cut post-mortem differ very obviously from one made during life or immediately after death.

Still bearing in mind that tests of this kind often have to be applied when the body has been prepared for burial, and is, perhaps, already in the coffin, there is one which is worth more attention than it receives in the books on medical jurisprudence: it is the tension of the eyeball. Anyone who will test the tension of the eye before death and again 24 or 48 hours after death will be astonished at the extraordinary flaccidity of the globe. The smallest pressure suffices to deform it, and to make the cornea stand out in a manner only rarely seen during life in the most collapsed eyes. And even here there is a difference. The very soft eye in life is often a shrunken eye, and is rarely seen on both sides, and has generally marks of some traumatic change besides.

Anyone who will look up the subject of the signs of death will be struck by the incompleteness of our knowledge on many important points. Both physiology and pathology have an interest in post-mortem temperature, but even so standard a work as Taylor's Medical Jurisprudence only offers data secured many years ago by the pioneer work of Sir S. Wilks, and the temperatures were taken by a thermometer applied to the skin and not in the rectum.

Another point upon which our knowledge is still not very precise concerns the actual condition as to cardiac action of the newly-born child who is resuscitated with difficulty by means of artificial respirations. Is it true that a child has lived whose heart's

action was in abeyance for as much as half an hour? In such a case one may doubt if really careful observation by methods of inspection, touch, and auscultation was systematically carried out. At any rate, here is a chance for collective investigation by the fraternity of externs. Other topics might be mentioned, but perhaps enough has been said to show that the subject of the Signs of Death is not without interest and importance.

"*Haec olim meminisse juvabit.*"

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

Stomatology in General Practice. By H. P. Pickerill. (Oxford Medical Publications.) 15s.

"There is a somewhat ill-defined territory lying between medicine and dentistry which to many practitioners is to a certain extent a terra incognita"—says the author in his preface. And we can even remember a certain surgeon of this hospital being confronted with a problem of no great difficulty to the dental mind. He cut the knot by tactfully allowing a dresser, who had served his time in the dental school, to assume a temporary command of the theatre.

It is open to doubt whether the surgeon, in view of the enormous extent of his own domain, can be expected to occupy the neutral field as well, but the information afforded in this book should prove quite valuable even to him, and infinitely more valuable to the practitioner for whom it is primarily intended.

We have not seen fractures of the jaws treated more lucidly than in Chapter XI., and the chapter on oral tumours is as much worth the surgeon's notice as the dentist's.

Manual of Human Osteology. By Francis Dixon. (Oxford University Press.) 10s. 6d.

This is certainly one of the best manuals of its class that has come to our notice. It is simply and clearly written, and is admirably practical, a qualification often lacking in works on this subject.

The illustrations, too, leave little to be desired. The various drawings of the skull are particularly praiseworthy, and the names of the various bony points, fissures, and the like are so distinctly labelled that we are neither confounded by a multitude of names, nor compelled to waste time in deciding which label of several applies to some given structure.

Internal Secretion and the Ductless Glands. By Swale Vincent. (Published, Edward Arnold.) 12s. 6d.

The last twenty-five years have seen our knowledge concerning the ductless glands advanced from nothing to a huge literature; a literature, moreover, which is scattered through innumerable journals and scientific pamphlets. Generally the student of physiology has comparatively little difficulty in finding a book of reference whereby he can readily follow the work done on some given problem; and can spare himself the turning over of half a library. But we think we are right in saying that previously to the volume we have before us no comprehensive presentation of our knowledge on the many questions connected with the internal secretions has been made.

And not only to the physiologist is this book of interest. The part which abnormality in the quantity or quality of the secretions plays in many diseases is a subject on which the medical man of to-day cannot afford to be ignorant, and the medical man probably has less time than his brother physiologist to spend in wildernesses of bibliography. Yet while we will allow the present work to be comprehensive we cannot call it complete; and complete it does not profess to be. The chapter on the pituitary gland, for instance, leaves unmentioned some of the later experiments and with others of importance deals very shortly. But this is inevitable. For the student and doctor the facts are sufficient; the student of research will have to proceed by a more laborious road.

The arrangement and tabulation of the chapters is admirable and the diagrams are clear.

Change of Address.

A. J. Harrison, M.B., M.R.C.S., L.S.A., from Failand Lodge, Guthrie Road, to 11, Christchurch Road, Clifton, Bristol.

Harold Harrison, L.D.S., from 5, Rodney Place, Clifton, to 82, Dutoitspan Road, Kimberley, Cape of Good Hope, S.A.

E. B. Hinde, M.B., B.C., F.R.C.S.E., from 7, Magdalen Road, to Gurney Court, Magdalen Street, Norwich.

A. P. L. Johnson, L.D.S., from 28, Lee Park, Blackheath, to Bank Chambers, New Milton, Hampshire.

D. S. Long, M.D., from 71 to 92, Micklegate, York,

M. D. Price, M.R.C.S., L.R.C.P., from Basra, Persian Gulf, to Gordon Street, Suva, Fiji.

J. G. Taylor, M.D., from 35, Nicholas Street, to Grey Friars House, Chester.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Papers by Guy's Men.

A. Allport, M.R.C.S., L.R.C.P.: Local Application of Salvarsan in Chronic Superficial Glossitis.—*British Medical Journal*, 17th August, 1912.

Hugh Barber, M.D., F.R.C.P.: Sudden Strains and Injuries of the Heart.—*Practitioner*, August, 1912.

E. L. Kennaway, M.D. Oxon., and M. S. Pembrey, M.D. Oxon.: Observations upon the Effects of Section of the Spinal Cord upon Temperature and Metabolism.—*Journal of Physiology*, xlv., Nos. 1 and 2.

P. P. Laidlaw and another: The Significance of the Supra-Renal Capsules in the Action of Certain Alkaloids.—*Ibid.*

G. N. Meachen, M.D., M.R.C.P. Lond., and Ed., M.R.C.S. Eng., B.S. Lond.: Systematic Study of Morbid Conditions of the Nails.—*British Medical Journal*, 10th August, 1912.

G. H. K. Macalister, M.D., D.P.H.: A Note upon the use of Antiformin in Sputum Examination, and on Staining Methods for the Demonstration of Tubercle Bacilli.—*British Medical Journal*, 24th August, 1912.

Sir Henry Morris, Bart., M.B., F.R.C.S.: Observations on the History of Syphilis, on the Wassermann Reaction and Parasyphilis, and on Treatment. Being the closing remarks on the fourth and concluding debate on Syphilis, at the Royal Society of Medicine on 8th July, 1912.—*Lancet*, 24th August, 1912.

Sir Shirley Murphy, F.R.C.S. Eng.: An Address on Some Points in the Decline of the Birth-rate and Death-rate. Delivered before the Preventive Medicine Section of the Congress of the Royal Sanitary Institute at York, on 30th July, 1912.—*Lancet*, 10th August, 1912.

G. Newton Pitt, M.D., F.R.C.P.: Adherent Pericardium.—*Practitioner*, August, 1912.

Louis Savatard, L.S.A.: Sebaceous Carcinoma and its Relation to Rodent Ulcer; also Fibro-sarcoma on Lupus Scar Tissue.—*British Medical Journal*, 10th August, 1912.

Hassan Shaheen, M.R.C.S., L.R.C.P. (In collaboration): Notes to One Thousand Cases of Spinal Anæsthesia by Stovaine.—*British Medical Journal*, 17th August, 1912.

F. Shufflebotham, M.A., M.D., B.C., J.P.: An Address on the Importance of Early Functional Treatment in Cases of Contusions and Sprains of the Back. Delivered before the International Congress on Industrial Accidents at Düsseldorf, on 7th August, 1912.—*Lancet*, 17th August, 1912.

Drink.

[Mr. Arbuthnot Lane states that alcoholics are very seldom the subjects of chronic intestinal stasis.]

The beer that I loved in my youth
I had shunned in my years of discretion,
As I saw those who'd sinned roam
With Korsakow's syndrome
To Bell, in an endless procession.

Cirrhosis had made me refrain
From the brandy I drank *sans* dilution,
And when I went rinking
I wondered if drinking
Would cause a severe comminution.

But Willy has banished my fear
And a pub. is to me an oasis,
For I don't mind the lot
If I'm certain I'll not
Be the ultimate subject of stasis!

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette." Guy's Hospital, London, S.E.*

Birth.

BELL.—On August 5th, 1912, at 42, Worple Road, Wimbledon, S.W., to Mr. and Mrs. A. Osborne Bell, a son.

Marriage.

HUNTER–BEALE.—On July 9th, at the Parish Church, Stone, Kent, Percy Douglas Hunter, M.R.C.S., L.R.C.P., to Kate Bell, daughter of Mr. Charles Bell.

Death.

RAND.—On August 7th, at Surbiton, John Rand, F.R.C.S., aged 76 (H.-S. to Mr. John Hilton and H.-P. to Dr. Addison).

Ed.—J. A. R.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 632.] SEPTEMBER 14, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	365–367
Pass List	367
The Quack Doctor	367–368
Papers by Guy's Men	368
Change of Address	368
Preliminary Notes on a Case of Infection by the Bacterium Prodigiosum	369–370
Richard Bright Abroad	371–372
Correspondence	372
Appointments	372
Gazette Special Pathologist	372
Fractures of the Shaft of the Radius. Clinical Lecture by Mr. E. C. Hughes	373–376
The Vestibular Nerve and Cerebellum. By T. B. Layton, M.S.	376–381
London Bridge and the Borough in the Eighteenth Century (*continued*)	381–384
Sport	384

Passim.

IN his presidential address at Dundee, Professor Schäfer has done something to revive the old doctrine of Spontaneous Generation. The division between the animate and the inanimate world, he contends, is drawn too definitely in the light of recent research. Movement, reproduction, and growth—usually considered as the exclusive characteristics of the living organism — are shown under conditions where the presence of life is open to question. For example, certain organic crystals, which do not contain the substances essential to living matter, are able to grow in a suitable medium and to reproduce their species. The movements of a drop of oil or mercury are indistinguishable in character from the movements of the Amœba, and it has been shown that the process of fertilisation in the sea-urchin can be brought about by chemical and electrical stimuli. It would, then, seem possible that there is a transitional stage between living and dead matter; and through this stage all living things must have passed in the course of evolution. This solution of the difficulty Professor Schäfer finds much more satisfactory than the intervention of a supernatural power. He foresees the day when the chemist will be able to prepare the lowest forms of life in his laboratory. If this transition from the non-living to the living has occurred in the past there seems no obvious reasons why it should not be occurring to-day, and he believes that the discovery of the actual process is merely a question of time and unwearying research on the part of scientists.

THE theory of Vitalism being disposed of as a cloak of ignorance and superstition, we are asked to accept a new philosophy of life founded on a strictly scientific basis. Much importance is not attached to the researches of Metchnikoff. Immortality of the living organism is only possible in so far as life is transmitted at birth from individual to individual. Old age is neither preventable nor formidable; and there is no scientific reason why death should be feared. Man, like a machine, does his work and is laid aside when he is worn out. We should look upon death as we look upon sleep; both are nothing more than simple physiological processes. "Let us at least hope that . . . . the sunshine, which science irradiates, may eventually put to flight the melancholy which hovers, bat-like, over the termination of our lives, and which even the anticipation of a future happier existence has not hitherto succeeded in dispelling." For ourselves, we must confess that this sunshine leaves us unwarmed.

ON Monday, September 9th, an extremely interesting and instructive address, accompanied by an excellent practical demonstration, was given in the Old Operating Theatre by Dr. R. H. Ferguson, of New Jersey, U.S.A. His subject was the administration of ether by the open method with the use of a minimum quantity of

the anæsthetic. In the short time available he succeeded in covering a great deal of ground; both general principles and details were clearly treated, and not a little new and important information was forthcoming. To Dr. Ferguson's own devices and improvements, and to the results of his obviously thorough and prolonged researches, it would be difficult to pay adaquate tribute. Those who had the good fortune to be present at his lecture will have come away wiser and better men if they have only found cause to realise the very special nature of the science of anæsthetics. Unfortunately, the average man has little chance of ever becoming in any sense a really proficient anæsthetist, and the ideal set before him in the doctrines and the person of Dr. Ferguson can only serve to make him the more aware of his own shortcomings. Nevertheless, Monday's demonstration should at least help him to regard the subject of anæsthetics with greater respect and interest.

IT is not often that one finds in one man the valuable combination of anæsthetist and psychologist. Yet in both of these branches Dr. Ferguson appears to be something of a master. He laid particular stress upon the psychological aspect of anæsthetisation, and in this branch of medicine, above all, it is surely time that such an aspect should be considered thoroughly. No more valuable precepts, we feel sure, could be laid down than those which Dr. Ferguson offered us relating to the treatment of the patient's mental condition, both before and during the induction of anæsthesia. His plea for casual encouragement of the patient before an operation, without any studied reference to the coming ordeal, seemed particularly valuable. Repeated exhortations are apt to arouse suspicions and multiply fears. The need for absolute silence and cessation of movement in the theatre during the state of induction, when the patient is in a state of hyperæsthesia should, as Dr. Ferguson urged, be much more rigorously observed. "Never ask a patient questions during induction," also seems a very admirable piece of advice.

Lack of space, unfortunately, forbids further reference to Dr. Ferguson's technique, to the rapidity of induction, and to the remarkably small quantities of ether used in his process; and his praise of women as anæsthetists cannot receive here the full attention it deserves. We sincerely hope that Dr. Ferguson will visit GUY'S again.

THE publication of a second volume of "Secret Remedies" has inspired an article, which appears on another page of this issue, relating to the quack and his evil traffic. The writer of the article expresses a hope that the spread of education may ultimately tend to diminish the evil. While we confess that we see no other force capable of coping with it, we cannot but comment on the fact that the increase in the manufacture of quack remedies has progressed synchronously, rather than retrogressed, with all attempts to improve the popular intelligence by means of an extension of educational facilities.

We have not infrequently heard Borough patients referring to the druggist as "the doctor," and this idea of the doctor as a mere dealer in drugs is still all too prevalent. The public has not yet acquired a proper respect for Science, with the result that Science cannot as yet be really efficient in her service of the public.

WE would draw the attention of our readers to the letter in our Correspondence Column which announces that the Hospital Ball is to be held on the 1st of November. We do not think, judging from the list of its organisers, that it is likely to fall short of the high success it has attained hitherto. No small share of public spirit is needed to arrange a function of so great a magnitude, and the contented guest can have but little idea, unless he has had experience of such matters, of the thousand and one details of organisation that go to make his evening's enjoyment. We would therefore ask those who intend to be present to do something to lessen the very heavy work of the hon. secretaries by applying for their tickets as soon as possible.

WE are pleased to announce that Mr. A. W. Walker, an old student of the Guy's Dental School, has received the distinction of being

specially appointed dentist to H.M. the King of the Hellenes. We understand that for some time he has been attending the Royal Family of Greece. It is gratifying to note that the fame of Guy's continues to be so ably upheld abroad.

J. A. R.
F. G. L. S.

Pass List.

University of London.

FIRST EXAMINATION FOR MEDICAL DEGREES.
July, 1912.

De Robillarde, E.	Howe, J. C. C.
Gill, L.	*†Mayer, R. G.

*Awarded a mark of distinction in Inorganic Chemistry.
†Awarded a mark of distinction in General Biology.

SECOND EXAMINATION—Part I.
July, 1912.

Bowes, E. S.	*Debenham, L. S.
Campion, O. St. L.	Portway, R. L.
Cocking, A. W.	Tweed, M. B. M.
Grice, J. W. H.	Vance, W. J.

Vidot, S.

*Awarded a mark of distinction.

Final Conjoint Examination.
June and July, 1912.

MEDICINE, SURGERY, AND MIDWIFERY.
*Miller, G. S.

MEDICINE AND SURGERY.

*Warner, C.	*Wilson, O. R. L.

MEDICINE AND MIDWIFERY.
Rook, H. C.

MEDICINE ONLY.

Genge-Andrews, G. E.	Reeve, E. G.
Hoby, H. J.	Richards, J. F. G.
Hunôt, F. C.	*Roberts, T. E.
Keith, S.	Ryle, J. A.
*Luna, V. A.	*Soothill, V. F.
*McDermott, B.	Wickenden, S.

SURGERY ONLY.

Andrew, G. W. M.	*Joly, J. M.
*Clarke, K. B.	*Matthews, W.
*Crosse, S. S.	Morgan, O. G.
Fry, W. K.	Poyser, R. C.
Garrard, N.	Reynell, W. R.
Garrett, G. W. B.	*Scott, M.

Zamora, A. M.

MIDWIFERY ONLY.

Bull, F. B.	Keer, K. J. T.
Danby, A. B.	Lewis, J. L. D.
Henry, A. M.	Maile, W. C. D.
Jones, E. L.	Pochin, C. H. G.
Jones, G. B. H.	Tilbury, A.

*Denotes completion of Examination.

The Quack Doctor.

IT is astonishing that the powers which avenge fraud and misrepresentation are so seldom exerted for the control or punishment of the medical quack. With frequently no more qualifications than a back room, a bale of drugs, and a water supply, he is allowed to advertise his nostrums with the most irresponsible mendacity, and there is none to refute him. His remedies are brought forward as the result of years of toilsome work in the laboratory; or the precious herb has been discovered in some remote corner of the globe; or a West End Physician—for reasons best known to himself—has presented the compounder with a prescription of peculiar efficacy in the treatment of some previously intractable disease. He is an adept at playing upon the follies and weaknesses of human nature; he tabulates an array of symptoms and a host of consequences should the complaint be left untouched. He trumps up testimonials and regulates his prices so that the most credulous shall pay most dearly for his credulity. In a certain number of cases his medicines may be of value; it would be surprising if they were not, seeing that few of them are made up of drugs not included in the British Pharmacopœia. Thousands engaged in sedentary work suffer from nothing more serious than a torpid alimentary system. They need a simple aperient occasionally, and if it pleases them to take it under a strange name and they do not object to paying twenty or a hundred times its real value, it may be that no one is much the worse off. They may also have the satisfaction of being their own physicians.

Some interesting light has been thrown on the question by the Parliamentary Committee on Proprietary Medicines. In considering the claims and merits of the various deafness "cures," for instance, it was shown that the preparations supplied for the purpose were largely made up of vaseline, beeswax, glycerine, soap, and oil, some of them were useless, others actually harmful. Oil dropped into the ear, it was pointed out, would tend to become rancid and so act as an irritant. A celebrated aural specialist said that he had from time to time seen cases, absolutely incurable by any drop treatment, using quack remedies of that description, with the result that the ear passages were in a state of severe eczematous inflammation. Artificial drums—often of obsolete pattern and clumsy workmanship—were supplied in unsuitable cases, so that the discharge was

penned up and, infiltrating neighbouring structures, caused an extension of the disease. Others are persuaded to buy various electric machines to "stimulate the nerve of hearing"; no account being apparently taken of the possibility that the acoustic apparatus may have long since passed beyond the reach of any stimulation, electrical or otherwise.

Vastly more serious does the question become when the quack attempts to deal with malignant disease. A large number of so-called "cures" for cancer have at one time or another appeared among the advertisements of daily and other papers. Some years ago a preparation purporting to be "electricity dissolved in water" was pushed by an enterprising journalist in the pages of a review he wrote; remarkable cures were said to have been accomplished, but examination revealed nothing more complex than plain water. Another was found to consist of slightly impure alcohol; a third of glycerine and talc. In the many preparations analysed by the National Cancer Research Fund experts a remarkable dissimilarity of ingredients was found, but no substance or mixture of substances which before or since has been proved of the least curative value. Unfortunately the medical profession cannot yet boast the discovery of a remedy for this dreadful disease; but, even so, there are very grave reasons why its treatment should not be left in the hands of these paid amateurs. In the first place the quack generally supplies his cure to all and sundry, without discrimination. His patients are self-diagnosed, self-treated, and all too frequently self-killed. Secondly, as was shown to be true by cases brought before the committee, early cases of cancerous growth are deluded by the boastings of their quack physician until, when increasing pain drives them to consult a surgeon, the disease has progressed too far for operation. Others, again, already inoperable when they see the surgeon, catch at the desperate hope that the much-advertised cure may fulfil its promises in their case; and are robbed of those easements to their sufferings which proper medical attention alone can supply.

It is difficult to see in what manner this systematised humbuggery shall be made to cease. The lay press remains discretely silent, for it relies upon the proprietary cure for a very substantial part of its advertisement returns; moreover, the editor's position would be exceedingly difficult if he were to be held responsible for the good faith of every advertiser in his paper. And it is to be feared that the Government, appreciating the value of this traffic to the excise returns, will not be the first to throw the stone. An enactment compelling the contents of every remedy to be shown clearly on the wrapper might possibly be of value. In Germany, Italy, and France, the rule is enforced with more or less severity, and yet the people of those countries still call out for something fuller of mystery than a mere qualified practitioner can supply. Probably education alone will stamp out the evil, and for this end, that the average man may see the worthlessness of the bait, the setting of the snare, and the dry bones of those that have been trapped—the British Medical Association has done good work in the publication of its two books on the "Secret Remedies." These little volumes should help to teach the Englishman to apply that common sense to the care of his health which he is supposed to exercise in the business and commercial world.

F. G. L. S.

Papers by Guy's Men.

Harold Chapman, L.D.S. Eng., D.D.S. Penn.: Dental Orthopædics and its Relation to General Medicine.—*Dental Record*, September, 1912.

F. G. Hopkins, M.A., M.B., D.Sc., F.R.S.: Dr. Pavy and Diabetes. "Science Progress in the Twentieth Century," July, 1912.

A. C. Jordan, M.D., M.R.C.P.: Peribronchial Phthisis, with special plate.—*British Medical Journal*, 31st August, 1912.

F. W. Langridge, M.R.C.S., L.R.C.P.: Clinicalia. Extracted from *Clinical Journal*.—*Clinical Journal*, 4th and 11th September, 1912.

Change of Address.

Lieutenant G. A. Blake, M.B., B.S., R.A.M.C., from the College, Guy's Hospital, to R.A.M. College, Grosvenor Road, S.W.

Carrick Robertson, M.B., B.S., F.R.C.S., from Waihi, N.Z., to Bresna, Alfred Street, Auckland, N.Z.

T. Wilson-Smith, M.D., M.R.C.P. Edin., from 17, Brock Street, Bath, to 26, The Circus, Bath.

John Tanner, M.D., F.L.S., from Claremont House, Lithos Road, to 8, Glenmore Road, Belsize Park, Hampstead, N.W.

J. P. Watkins, M.R.C.S., L.R.C.P., to the Gables, Romsey, Hants.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Preliminary Notes on a Case of Infection by the Bacterium Prodigiosum.

ALTHOUGH it has already been repeatedly proved that the bacterium prodigiosum has pathogenic properties for rabbits, mice, guinea-pigs, and slightly for frogs, there is, as far as can be ascertained from the literature, no case of an infection in man with this organism on record. As a rule, the bacterium prodigiosum, which is so conspicuous by its beautiful colour, leads a saprophytic life on potatoes, bread, and practically all starchy substances, and it has also been found in water.

It was first described by "Ehrenberg," and since then a considerable number of bacteriologists have worked and published on the subject, namely, Cohn, Fluegge, Schottelius, Keuber, Bertarelli, and others. In the last few years this organism has gained a wider publicity by its use in Coley's fluid, which is prepared from a mixed culture of the streptococcus erysipelatis and the bacterium prodigiosum, the latter being added for the purpose of mitigating the toxicity of the streptococcus.

Recently a case has come under our observation which, from all appearances, seems to justify the supposition of being an infection with the bacterium in question. Here is his history in short:—

The patient is a man of 24, a clerk. He gives no family history of tubercle, and, except for an attack of broncho-pneumonia in infancy, has himself been exceptionally free from illness. Careful physical examination of his lungs revealed no adventitious signs. His mouth, pharynx, and larynx were examined, but nothing was discovered which could in any way account for his symptoms, and except for a slight blurring of the first sound in the mitral area he appeared perfectly normal. On going more carefully into his history, he says that for several years he has coughed up a rather offensive liquid sputum, usually in the mornings, the colour of the sputum being dark and in winter becoming more abundant and almost black. Latterly he became very anxious about himself on account of his voice, which he noticed became very hoarse after singing even for a short time. He did not, however, consult a doctor until the end of June this year, when he spat out what he imagined to be blood. This occurred during the afternoon, and was not, apparently, associated with coughing. Fearing that he was consumptive he visited his doctor, who, after examining him, could find absolutely no physical signs in his lungs.

The patient has had five similar experiences since at varying intervals, never associated with coughing or retching, and usually occurring during the afternoon.

He again consulted his doctor, and as a result of his visit a specimen of his sputum was sent up for examination. This we examined on July 15th. A direct smear showed what appeared to be a large quantity of intestinal bacteria. Some short, chained, gram-positive cocci, a large quantity of gram-negative bacteria, which were on this occasion taken for coliform organisms and a number of smaller gram-positive organisms, some of which appeared to have endospores.

All the bacteria which generally form the flora of the mouth and respiratory tract were entirely absent; and, apart from the bacteriological point of view, the specimen had no appearance of sputum, containing neither any form of leucocytes, nor mucus, nor any elements of the respiratory tract. As only an examination for the tubercle bacillus was asked for, and no acid-fast bacteria were found, no further investigation was made on this specimen. A second specimen was examined on August 9th, and was found to be similar in appearance, by direct and microscopical examination, to the previous specimen. On this occasion some of the material was planted out on agar, serum agar, blood agar, broth, and glucose broth, and in twenty-four hours was found a thick mixed growth of pink and white colonies on the agar tubes. Sub-cultures from the white colonies showed a pure growth of the bacillus mesentericus. Sub-colonies from the pink colonies showed all the characteristics of the bacterium prodigiosum.

1. On agar, a thick, red, creamy growth.

2. On glycerine agar, thick, pink growth, becoming redder after removal from the incubator to room temperature.

3. Gelatine was liquified in twenty-four hours, and a slight pink colouration produced, which became gradually darker at room temperature.

4. Milk was clotted in twelve hours, with an acid reaction.

5. On potato, a thick creamy growth which became dark blood red at room temperature.

6. On lactose, glucose, mannite, and cane sugar, the reaction was acid, with formation of gas.

The organism produced a curious, somewhat fishy smell, reminding one of the odour of shrimps. The characteristic features of all the cultures on agar were the exceedingly rapid and luxuriant growth, and the varying shades of colour produced, varying from pale pink to dark blood red.

On microscopical examination was found a short motile rod with rounded corners almost coccoid in shape, not staining by Gram's method. On further investigation of the various colours formed under different conditions, we have made the following observations up to date:—

1. On agar at 32° C. it grew red, becoming pink on standing at room temperature.

2. On agar at 39° C. it grew white, becoming brick red on standing at room temperature.

3. On egg cultures stained with neutral red at 37°C. a mauve colour was produced.

4. On oleic acid agar stained with neutral red, a brick-red colour was produced.

Cultures were then grown in an atmosphere of coal gas.

1. On agar at 37° C. they grew white, and remained so both at room temperature in normal atmosphere and at 37° C. in normal atmosphere and in an atmosphere of pure oxygen.

2. Sub-cultures from this on agar grown aerobically at 37° C. grew brick red, and in pure oxygen grew pink.

3. Sub-cultures were again made from the same culture as No. 1, on agar, glucose agar, broth, and gelatine, and again grown in an atmosphere of coal gas. These grew white in all cases, and remained so for two days in normal atmosphere and at room temperature. They were then again placed in an atmosphere of coal gas and incubated at 37° C., becoming pink in twelve hours.

Cultures were then grown in an atmosphere of pure oxygen at 37° C.

1. On agar from aerobic cultures on agar a pink colour was produced.

2. On agar from anaerobic culture a much darker colour was produced.

3. A red culture on agar became rapidly darker.

On August 21st and 22nd the patient again spat out what he thought to be blood, and brought for examination a sample of both. Both these specimens differed in appearance from those previously examined. The offensive smell was not marked; the first specimen was of thick consistency and grey in colour. A direct microscopical examination showed no blood cells and no acid-fast bacteria; but there were present a large number of motile gram-negative bacteria closely resembling the bacterium prodigiosum, and many cocci were also seen. It was planted out on various media. The agar cultures showed no colouration, but a thick, white, creamy growth, and on microscopical examination gram-negative bacilli resembling in appearance the bacterium prodigiosum, gram-positive cocci (staphylococcus and streptococcus), together with gram-negative cocci, most probably the micrococcus catarrhalis, were found. As it was thought possible that the presence of other organisms might inhibit the growth of colour, an emulsion of these bacteria was planted out with the bacterium prodigiosum, but the resulting growth was similar in colour to the prodigiosum culture from which the sub-culture was made. In successive sub-cultures, over a period of a month, the tendency is for the organism to lose gradually its power of producing colour.

The specimen of the 22nd was similar in all respects to that of the 21st, except that there was a distinct, though faint, red colouration in it. This sputum was placed in an atmosphere of oxygen at 37° C., but no change in the colour took place. The opsonic index of the patient to the mycobacterium tuberculosæ was, on August 23rd, 1·03, and on August 25th, 1·10.

Although from the observations at present made it is impossible to locate the original seat of the bacteria, and still less possible to give the exact conditions which may cause the growth of the bacterium to take on a colour closely resembling blood, yet the fact remains that in all the microscopical examinations of the sputum, particularly of the one coloured pink, no red blood cells were found. This fact, taken together with the complete absence of any physical signs and clinical symptoms of any pathological condition which produces hæmoptysis or hæmatemesis, the possibility of phthisis being further reduced by a normal opsonic index and the presence of a large number of organisms capable of producing colour, makes it possible or even probable that the pink appearance of the sputum is not hæmatogenic, but due to the presence of the bacterium prodigiosum. It will require longer and more thorough examination before we shall be able to give further and more definite details of the clinical as well as the bacteriological aspect of this case, but the main object of these preliminary notes is to draw attention to the possibility that pink-coloured sputum may not in all cases indicate the presence of blood. The cases may be rare, and the presence of bacterium prodigiosum exceptional, but the unusual should be borne in mind, especially in cases of such vital importance as in the question of the presence or absence of blood in the sputum. In conclusion, this shows that in no case of suspected hæmoptysis should a bacteriological examination of the sputum be neglected, for by the microscope a definite answer can be given, whereas the naked-eye appearance may prove a grave fallacy.

H. M. M. WOODWARD.
K. B. CLARKE.

Since this paper was written two more specimens of the man's sputum have been examined. They resembled blood-stained sputum in colour, but contained no red blood cells and no acid-fast bacteria. Cultures from each again showed the bacterium prodigiosum, white in air and in oxygen.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

Richard Bright Abroad.

The publication of new memoranda relating to the lives of great men of the past, or of some fresh recognition of certain of the more noteworthy incidents in their careers, is always an occasion for reawakened interest and pleasant retrospect. More especially is this the case when the personage in question has some outstanding claim upon our attention; when, for instance, there exists that feeling of mingled pride and intimacy—despite the lapse of half a century or more—which is only engendered in the minds of men who are workers in the institution which produced the particular object of their approbation.

In a recent and very excellent paper* which was read before the Johns Hopkins Hospital Historical Club, and of which a copy has been kindly sent to the Wills' Library by the author, Dr. Fielding H. Garrison, an admirable account is given of Richard Bright as a traveller and an observer. Of Bright as a physician much has already been written, and those who have read Wilks' and Bettany's History of Guy's Hospital, will have acquired some idea of the general outlines of his striking character; but of Bright, viewed from the aspects chosen in this paper, much less, in all probability, is known.

After a cursory review dealing with the travels of other eminent physicians, Dr. Garrison proceeds at once to a very favourable consideration of Bright's own account of his journey from Vienna through Lower Hungary, in which he states it as his opinion that the account is probably "... the most important book of travels written by a physician, for his (Bright's) object in writing it was no less than to give, incidentally, a scientific account of the state of that kingdom at the time of the Peace Congress of 1814–15, just before the close of the Napoleonic Wars." He maintains further, that in "descriptive talent and scientific accuracy," Bright's book compares favourably even with the work of so great a master in that special field as Sir Richard Burton—surely a sufficient tribute to its excellence.

A short sketch of the earlier days of Bright's career ensues, including a note on Sir George Mackenzie's visit to Iceland (1810), in which he was accompanied by Bright, then a medical student of twenty-one. In the volume of travels resulting from the expedition, Bright contributed the chapters on zoology and botany.

In the year 1814, when Bright was an intern at Guy's, we find him taking a long vacation tour on the Continent, and in March and April, 1815, making his two journeys into Hungary. The results of his travels were published as a quarto in 1818, and contained interesting illustrations which were all the work of his own pencil. Thus, in addition to his many other attainments, he appears to have been no mean performer as an artist, and Dr. Garrison's paper is accompanied by a reprint of one of his original drawings.

The paper next proceeds to discuss Bright's description of his sojourn in Vienna, which is full of life and colour and is of considerable literary merit. The hotel accommodation and means of transit seem to have been of the crudest at the time of his visit, and the dinner parties, religious ceremonials, court balls, and other functions which he found in full swing must have afforded a pleasing contrast with his other experiences. The general state of science in Vienna Bright did not find to be flourishing. Johann Peter Frank (1745–1821) was the only survivor of the old Vienna School, and was the leading medical man in Vienna at the time. In his "Complete System of Medical Polity" he appears to have anticipated our difficulties of to-day and prophesied remarkably concerning our methods of dealing with them, by discussing such schemes as medical inspection of schools, the proper feeding and care of children, and other questions of importance from the point of view of public hygiene.

Another man who seems greatly to have impressed Bright was Count Harrack, concerning whom he writes:—

> "This singular man turned his attention to the study of medicine somewhat late in life, for the sole purpose of doing good, and continues to spend his time unceasingly in relieving the miseries of those who are unable to make pecuniary return for the attention and advice they receive."

The things which most interested Bright, as perhaps one would anticipate in a man possessed of so much breadth of view and human sympathy, were such as were connected with the customs and conditions of the people. The oppression of the peasants, and still more their toneless submission to oppression, struck him very forcibly. Concerning the prevalent feudalistic system in the country districts, he wrote:—

> "It is certain that the whole system is bad ... A man of capital can bear for a year or two years the failure of his crops; but let a cold east wind blow for one night—let a hailstorm descend—or let a river overflow its banks—and the peasant, who has nothing but his field, starves or becomes a burthen to his lord."

* Richard Bright's Travels in Lower Hungary: A Physician's Holiday.

His artistic sense responded actively to anything of the picturesque, and of this there was plenty to be found on his journeyings in the costumes and also in the superstitions of the people.

On his rough journeys he seems to have had frequent opportunities of studying the gipsy tribes, and "like George Borrow," says Dr. Garrison, "he speaks with lively sympathy of the advantages of the free, independent, roaming life of these people in the open air."

Bright gave an interesting account of the medical institutions in Budapest, where there was at that time a five years' curriculum; lectures were delivered in Latin, and a system of monthly ward-reports was in vogue.

Dr. Garrison concludes his paper with a consideration of Bright's further work and successes, some notes on his medical contemporaries, and a pleasing tribute to the remarkable original work done at Guy's Hospital.

It is interesting thus to have the first famous exponent on renal disease presented to us in the light of traveller, artist, and keen observer of social problems; and it is gratifying to feel that his fame is as well or better travelled even than himself.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

DEAR SIR,—The Guy's Hospital Ball is being held this year at Prince's Galleries, Piccadilly, on Nov. 1st. Mrs. Cosmo Bonsor and Lady Goschen have consented to act as Patronesses, and Mrs. Symonds as Hostess. The following ladies have been asked to form a Committee:—Mrs. Frederick Taylor, Mrs. Hale White, Mrs. Newton Pitt, Lady Perry, Mrs. Lauriston Shaw, The Matron, Mrs. Arbuthnot Lane, Lady Fripp, and Mrs. Steward. Joyce's Band has been engaged. The tickets, 12s. 6d., are to be had on application to the Secretaries or the Committee.

We hope you will find space to publish this letter in the GAZETTE, as it is our most valuable means of making the particulars of the dance known to Guy's men, particularly those who are not now at the Hospital.

The proceeds are to be given to the Hospital. It is to be hoped that applications for tickets will be made early. The Committee reserve the right to raise the price of the tickets after October 20th.

V. GLENDINING, } *Hon.*
A. M. ZAMORA, } *Secs.*

September 7th, 1912.

Appointments.

Naval and Military.

Staff-Surgeon H. R. H. Denny, R.N., is posted to the *Prince of Wales*, additional for 2nd and 3rd Fleets.

Surgeon Q. H. Richardson, R.N., is posted to the *Natal* on recommissioning.

Major L. Humphry, R.A.M.C., has been appointed Specialist in Operative Surgery at Chatham.

Captain A. W. Gater, R.A.M.C., has been placed in Medical Charge, 4th Dragoon Guards, Salisbury Plain.

Captain F. M. M. Ommanney, R.A.M.C., has been posted to the Eastern Command.

Captain A. C. Osburn, R.A.M.C., has been appointed Specialist in Dermatology at Hilsea.

Lieutenant G. A. Blake, M.B., R.A.M.C., is posted to R.A.M. College for Preliminary Course of Instruction in Military Medical Subjects.

Lieutenant M. A. Rahman, I.M.S., to be Captain.

The following have passed in the subjects for promotion specified.

For promotion to Lieut.-Colonel:—Major H. D. Packer, R.A.M.C., Appendix xiv., K.R., Subject 2, Part 1. (d. ii.).

For promotion to Major:—Captain H. V. Bagshaw, R.A.M.C. (d. ii.), Captain R. P. Lewis, R.A.M.C. (d. ii. & iii.), Captain M. C. Wetherell, R.A.M.C. (d. iii.).

Territorial Force.

Second London (City of London) Field Ambulance R.A.M.C., Lieutenant F. Morres resigns his commission.

Civil.

F. A. Beattie, L.S.A., has been appointed Medical Officer, Penistone Union Workhouse.

Gazette Special Pathologist.

C., MARKET HARBOROUGH.—There is no evidence of a malignant growth in the material sent for examination. It consists of pancreas, which shows marked post-mortem changes and stains very badly. There is a hæmorrhagic mass which is in the fat outside the pancreas rather than in the pancreas itself. In this blood are many large cells like fibro-blasts as if organisation were beginning. There is no fat necrosis or other evidence of pancreatitis. We cannot say that the material exposes the cause of the hæmorrhage.

PATHOLOGIST.

Fractures of the Shaft of the Radius.

CLINICAL LECTURE BY MR. E. C. HUGHES.

GENTLEMEN, the following description of the movements of pronation and supination is taken from Quain's Anatomy: "The disposition of the articular ligament allows the head of the radius to rotate freely within it, while the lower end of the radius being bound by the triangular fibro-cartilage to the styloid process of the ulna, undergoes, in addition to the rotation, a movement of circumduction round that point by which the hand is brought into the prone or supine position. Thus, in pronation and supination the radius describes a part of a cone, the axis of which extends from the centre of the head of the radius to the styloid process of the ulna. The range of movement between the radius and ulna is rather less than 180°. Accompanying the movement of the radius in the pronation and supination of the hand, there is generally a less extensive movement of circumduction on the part of the ulna in a direction opposite to that in which the lower end of the radius travels. The circumduction of the ulna is produced by a slight degree of flexion or extension together with a corresponding lateral movement, having their seat in the articulation of the elbow and is not accompanied by any appreciable rotation of this bone."

I propose to-day to deal with fractures of the shaft of the radius, and so for practical purposes we can regard the ulna as being stationary while the radius is rotating round it. The hand and carpus follow the movement of the radius, and the pronation and supination of the hand are due to alterations in the position of this bone.

You will agree that in order that the movements may be smoothly and naturally executed, the upper and lower extremities of the bone must move normally, any movement of the upper end being accompanied by a corresponding movement of the lower end. This, of course, is due to the movement being transmitted along the shaft from one extremity to the other; for if we imagine a portion of the middle of the shaft to be removed, movements of the upper end will produce no effect on the lower end, because there is no continuity between the two parts.

Therefore the two extremities follow one another when there is no break in the continuity of the intervening shaft. I have here some specimens of united fractures of the radius, and if they are carefully examined, it will be seen that while the union is firm, a considerable amount of twisting has occurred at the site of fracture. Examine this specimen (see drawing) and place the bone in a position of full supination and you will know when you have it in this position, because the tuberosity of the radius is an antero-internal projection. Now look at the lower end of the bone and you will see that the normal anterior surface is directed inwards, and you will gather, if you look at the fractured region, that though firm union has occurred, the lower fragment has twisted through an angle of about 90°.

Now what will be the result of this? You are holding the bone in a position of complete supination, and the upper fragment cannot be more externally rotated, therefore the lower fragment cannot be more externally rotated, so that there is a permanent loss of about one half the normal range of supination. It is probable that pronation was complete and normal, so that the net result is a loss of about 90° in the direction of supination.

It follows from this that the two extremities follow one another normally only when the intervening shaft is normal, or if it has been fractured where the bone has united so that there is no torsion or angling at the site of fracture. Such a fracture then is comparable to a fracture into a joint, since in both cases malunion will interfere with the movements of the part.

Is it important that the movements of pronation and supination should be perfect? I think it is. Watch a navvy at work using his spade, and you will notice that both hands are in a position of nearly full supination; watch him lifting a heavy weight, his hands are then in a position of complete pronation. Limit either of these movements and you will make him a less efficient workman.

Watch a violinist, the left hand is in a position of full supination, and the right hand in a position of pronation.

It would be a disaster for a large number of people, navvies, musicians, ourselves as surgeons, and many others to have any limitation of these movements.

To others it would not be such a serious matter, *e.g.*, to the leisured classes or to those whose work is done with the hand in a pronated or semi-pronated position.

But in this case the limitation must be in the direction of supination, for the natural position

of the hand at rest, or in the acts of writing, or using a knife and fork, etc., is that of pronation.

It may be said that rotation at the shoulder can make up for any deficiency of these movements, and this is true in part. It is true if the elbow is extended. Considerable loss of pronation and supination may then pass unnoticed. Now very few of our actions are performed with the elbow extended, but are carried out with the elbow at a right angle. In this position the supplementary rotation at the shoulder is much more difficult to carry out, and when carried out, is an obvious and ugly action.

What is the cause of the deformity or altered position of the fragments in the case of a fracture?

Text-books mention that there are two methods of producing this fracture, direct and indirect violence, but do not draw attention to any difference in deformity as a result of their mode of production.

They do not mention the forces producing the fracture as being responsible for any part of the deformity, other than the remarkable contraction of the muscles set up by the damage inflicted on them.

These books regard the insertion of the pronator radii teres as a magic point; if the bone breaks above it, biceps and supinator brevis contract, fully supinate and flex the upper fragment, while the lower fragment swings over into a pronated position and is adducted to the ulna by the action of the pronator muscles. If the bone breaks below the insertion, the upper fragment is flexed and semi-pronated, while the lower is adducted to the ulna and fully pronated, and all this is done by muscular action. Imagine this latter case; a comparatively small muscle like the pronator radii teres can get the better of that most powerful supinating muscle, the biceps. I have not yet read a description of what happens when the bone breaks through the insertion.

Do you believe in this marvellous muscular conjuring trick?

Let us look at fractures elsewhere, the so-called impacted extra-capsular fracture of the neck of the femur is produced by a heavy fall on the outer-side of the trochanter, with the result that the neck gives way about its base and is driven into the trochanter and upper part of the shaft. This fracture is due entirely to the forces at work, and it is accepted by the text-books as such.

Do any of these books claim that this impaction is the result of muscular contraction? Then take the patella; this may probably occur to you as the best example of muscular contraction producing the separation of the fragments, *i.e.*, the deformity.

For a moment recall a recently fractured patella, such as you have seen in the front surgery and later at the operation. You remember that the joint is distended with blood, and particularly so if you see the case after an interval of some hours. If you see the case before there is much effusion of blood you can take the two patellar fragments and rub them together and you will obtain crepitus, a favourite text-book sign of fracture. Surely if this remarkable muscular spasm occurred with such a powerful muscle as the quadriceps, you would be unable to bring the fragments together.

The subsequent separation of the fragments that ensues in a case which has not been operated upon, and where the patient has been getting about is due to the fact that bony union has not occurred, since at the outset, the blood in the joint thrusts forward the fragments and separates them and some of the fibrous tissue on the front of the patella has intervened between the fragments, and to the fact that the fibrous uniting band has stretched in the process of actively flexing and extending the knee.

One more example which is given as deformity due to muscular action: a fracture in the upper third of the femur where the upper fragment is tilted forwards at an angle on the lower fragment which lies behind it. Here it is said that that powerful flexor of the femur, the psoas flexes the upper fragment, while the hamstrings and other powerful longitudinally running muscles draw up the lower fragment behind the upper. This, again, is the wrong explanation, it is the violence of the accident, which produces the fracture, forces the lower fragment up and behind the upper fragment, and pushes the latter forwards. If in other regions of the body deformity is due to the forces producing the fracture, why in the case of the radius should there be an exception?

Deformity resulting from fractures of the radius is due to the forces producing them, and is in no way due to any muscular contraction or spasm.

Fractures of the radius are produced by direct and indirect violence, and as you know direct violence tends to produce a transverse line of fracture, and indirect an oblique or spiral.

Fracture by direct violence is produced either by a blow on the radius, which gives way at the point struck, or as a result of a person falling and compressing the bone between the body and the ground. In the former type the fracture will be transverse, and there may be a considerable amount of lateral displacement, and in the latter the fracture is still transverse, but with some rotation of the fragments upon one another. This rotation is due to the fact that after the bone has been snapped the body weight is not at once removed but continues to act upon the fragments and in an uneven way so that the more mobile fragment, usually the lower, is forced on after the fracture has occurred to a greater degree than the other.

Fracture by indirect violence is due to a fall on the hand, and instead of a Colles' fracture being produced, the shaft of the bone yields instead. The line of fracture in this case is oblique or spiral, and the force causes the fractured surfaces to slide on one another, so that they overlap to a greater or less extent, and owing to the direction of the line of fracture and the obliquity of the force travelling up the radius and acting only on the lower fragment, after the fracture has occurred, rotation takes place.

The deformity then resulting from a fracture of the radius is due to the position of the bone at the time of the accident, to the force producing the fracture, to the direction of the line of fracture, and to the duration of the period of time in which the force is acting after the fracture has occurred.

You may say "why are the results of conservative treatment of fractures of the shaft of the radius so good, based as it is on the muscular contraction theory?" My answer would be that the results are not good, but that they are uniformly imperfect.

But let us consider the text book treatment. We are told to flex the elbow and reduce the deformity. If the fracture is above the insertion of the pronator radii teres, the reduction is brought about by putting the forearm and hand in a fully supinated position. This is based on the supposition that the upper fragment is fully supinated and its position cannot be altered by manipulation, and that by supinating the lower fragment the fractured ends are brought into correct apposition. If the fracture is below the insertion, the reduction is effected by placing the forearm in well-padded splints with the thumb uppermost, *i.e.*, in a position midway between supination and pronation. The reasons given for this position are that the bones are then parallel to one another, that there is a good interval between them, and so the danger of the radius becoming united by callus to the ulna is avoided.

One text book, which the Librarian tells me is read for higher examinations, remarks that the supinated position for fractures above the insertion is irksome, and recommends that they be set in the same position as when the fracture is below the insertion.

Why, if this supinated position is correct for such fractures, should it be given up because it is irksome? And if the muscular theory is correct, the supinated position is the one in which such fractures should be set. This text book leads us to draw one of two conclusions, either that it does not believe in its muscular theory, or that the results are as good (or as bad) whether the bones be set in the supinated or semi-pronated position.

The correct conclusion to draw is, I think, the latter, when we consider the reasons given for putting the fracture up in the semi-pronated position. We read that in this position there is a good interval between the bones and the danger of cross union is avoided. It seems to me that this treatment is a compromise in that it aims at avoiding the great disaster of cross-union and does not aim at getting a perfect result. In fact, by conservative treatment a perfect result is a fluke and not the result of sound treatment. My experience of the conservative treatment of fractures of the shaft of the radius is that the results are never perfect, but that there is always limitation in the direction of supination, sometimes a considerable amount.

You must test the movements fairly, not allowing the rotation of the humerus to mask any loss of movement in the forearm, and the surest way is to grip the humerus above the condyles, to flex the elbow and then test the range of movements.

The accompanying drawing represents a not uncommon result of conservative treatment.

How then should a fracture of the shaft of the radius be treated? You must first reduce your fracture, and by that I understand that the ends of the fragments are placed in apposition, and that any rotation of one upon the other is rectified. And it is this reduction which is so extremely difficult and, as I believe, impossible in the vast majority of cases without an open operation. The great obstacle in reduction is not, as is supposed, muscular contraction, but hæmorrhage into and under the layers of fascia, and other soft tissues which act as ties in the

length of a bone, and to the subsequent aseptic inflammation which ensues.

It is difficult, perhaps, to believe that it is not due to muscular contraction, but a case I operated on recently tends to show that muscular contraction may be fairly readily overcome. The case was that of a fractured femur in a boy of 14 years of age, who, for about two years, had been walking about with six inches of shortening of one lower limb, due to the two fragments of the femur having united at a right angle. I operated and divided the bone, and by a steady pull on the foot, I eventually united the fragments in good position but with one inch of shortening. In this case the muscles yielded very readily for the first three inches, but it was a strong pull over the last two inches.

A malunited radius. The upper half of the bone is fully supinated, while the lower half is rotated inwards through an angle of 90°—a not uncommon result of the conservative treatment of a fracture of the shaft.

So I think we can exclude muscular contraction as a factor in the forearm where the overlapping is but slight in extent, and the muscles comparatively feeble compared with those of the thigh. You will endeavour under a general anæsthetic with the elbow flexed to reduce your fracture, and in order to be sure you must repeatedly examine with the X-rays from several points of view to make certain that any rotation which was present has been rectified. I do not think you will succeed, but if you do you must be prepared for the deformity to be reproduced on slackening your hold, when the fracture has been produced by indirect violence and the line of fracture is oblique.

I have come to the conclusion that all fractures of the shaft of the radius should be operated on. I do not advocate operative treatment of all fractures, but I regard a fracture of the radius as one of the most serious of fractures when the patient's livelihood depends upon the possession of strong normal limbs; and you can promise your patient a perfect forearm as the result of operative procedure. In many cases, if the patient belongs to a leisured class, or is a clerk, or one whose work is done almost entirely with a pronated hand, conservative treatment will suffice, but the result will be imperfect.

If you have come to the same conclusion as myself, you will advocate immediate operation; you will not wait for two or three weeks to see how matters will go. If you do watch for a time and then decide to operate, your operation will be far more difficult than it would have been during the first few days after the accident.

At first the operation is comparatively easy; I say comparatively, for the operation of bone plating is not an easy matter.

The Vestibular Nerve and Cerebellum.

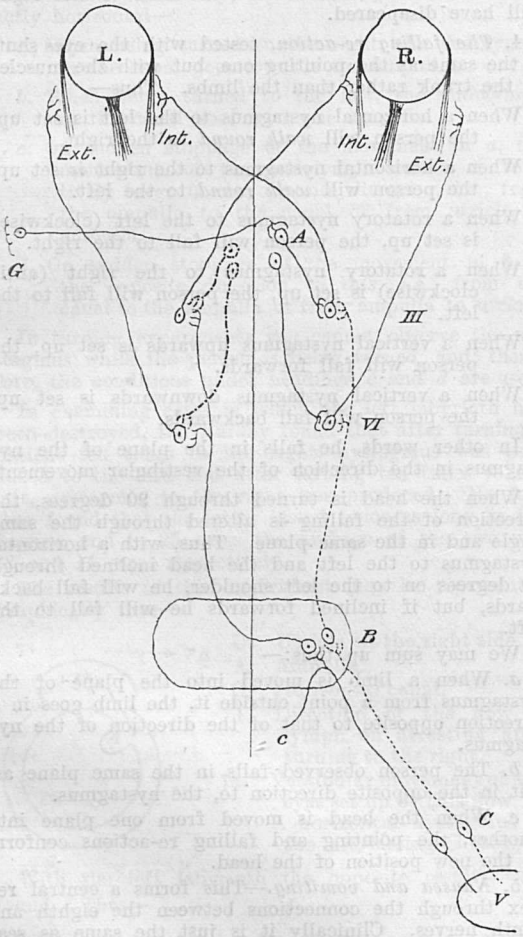
(Being notes of the theoretical part of a course given in May, 1912, by Dr. Robert Bàrány, of Vienna, on the functional testing of the Labyrinth.)

By T. B. LAYTON, M.S.

Nystagmus.

A vestibular nystagmus consists of two movements—a rapid movement in one direction followed by a relatively slow one in the other. Such movements may occur in any of the three primary planes of the body: the horizontal, when there is a horizontal nystagmus to the right or left; the sagittal, with nystagmus up or downwards; and the coronal, with the two rotatory forms.

The nystagmus is always called after the quicker of the two movements, although this movement is not set up by stimulation of the vestibular nerve, but by a supra-nuclear centre in the mid-brain connected on one side with the gyrus angularis, and, on the other, with the nuclei of the third, fourth, and sixth nerves.



A. Supra-nuclear centre for quick movements of the eye.
B. Bechterew's and Deiter's nucleus.
C. Scarpa's ganglion.
III. Nucleus of 3rd nerve.
VI. Nucleus of 6th nerve.
G. Gyrus angularis.
V. Right vestibule.
c. Collateral to cerebellum.
-.- -.- - These fibres are destroyed in the case mentioned below.

The slow movement is set up by stimulation of the eighth nerve, and is, therefore, known as the vestibular movement. That these things are so is shown by cases in which the nucleus for the quick movements is destroyed, *e.g.*, in disseminated sclerosis. Such a case is the following:—

The patient cannot look to the left, *i.e.*, he cannot voluntarily bring both eyes more to the left than the mid line. But he can squint to the tip of his nose, *i.e.*, right cortical area is intact, and it is not a nuclear lesion of the third nerve. When nystagmus to the left is set up by stimulation of the vestibule he gets no quick movements to the left, but only the slower movement to the right, and the eyes become fixed in the right corners of the eyes. When nystagmus to the right is set up, he gets it completely, and can then bring his eyes across the mid-line to the left. For, by inhibition of the right side he can relax his muscles till they reach the mid line, and when in this position the vestibular sensation causes him to pull the eyes over to the left, and this stimulation does not pass through the centre A. We may, therefore, assume that there is such a centre as that depicted in the accompanying diagram, and that in this case it is destroyed.

Innervation of one set of muscles is always associated with inhibition of the opposite, and there is a continual tonic stimulation passing from the centres controlling the muscle tonus. By inhibition this tonus is accumulated, and then breaks through the inhibition.

The quick movements may, then, be explained thus—

In nystagmus during the slow movement to one side (*e.g.*, right), there is an inhibition of the tonus of the muscles which move the eyes to the left. After a time this accumulated tonus breaks through the inhibition and causes the movement to the left. This movement is quicker than the other because the muscles have recently been relaxed, and relaxation of a muscle stimulates the nerve endings in it.

This vestibular nystagmus may be set up by stimulation of the labyrinth of the vestibular nerve, of Deiter's and Bechterew's nuclei, and of the secondary vestibular tract. We must, therefore, distinguish between a peripheral vestibular nystagmus set up in the labyrinth or vestibular nerve and an intracranial one set up by the nuclei or tracts in the medulla. Besides these are various forms of congenital and optical nystagmus. An optical nystagmus may have the same characteristic double movement—one quick, the other slow; but undulatory nystagmus also occurs in which both movements are equal.

In any case of nystagmus, therefore, it is necessary carefully to observe the direction of the movements and character of them as well as the mere fact of movement. If a person have a spontaneous nystagmus he may conceal it by fixing the look on some point; therefore, to exclude this before any examination is made, he must be observed behind opaque spectacles or through high convex lenses which prevent fixation.

Associated Symptoms.

Associated with nystagmus are certain symptoms which, together with it, make up the symptom complex known as dizziness.

Suppose a horizontal nystagmus to the left has been set up—

1. *Sensations of movements of objects.*—The objects around seem to turn to the left. There are individual differences here: some people have a sensation of to-and-fro movements of the objects; in other rare cases there is no such sensation at all. These differences depend upon the degree in which the centres of the brain are adapted to the change of position of the image on the retina. For it is known that when a voluntary movement of the head is made there is no sensation of alteration of position of objects in space. but when an involuntary one is made that such a sensation is produced; that is, the higher voluntary centre is so adapted, while the lower involuntary one is not. Now, the centre for the quick movements in nystagmus is a higher one than that for the slow. We may, therefore, assume that in the majority of cases this centre only is adapted to movements of images upon the retina; also, if both movements are noticed, that neither centre is adapted, and if no sensations of movement are felt, that both are. This idea of adaptation is borne out by the fact that when a spontaneous nystagmus occurs in a patient the sensation of movements are lost in a few days.

2. *Sensations of turning.*—The person under experiment feels himself go to the left. This is easily overpowered, and to appreciate it the person must remain still with the eyes shut, for any voluntary movement will neutralise it, and if the eyes are open the last sensation will overpower it. So, also, it is not noticed if the dizziness be caused by the patient whirling himself around.

3. *The pointing re-action.*—When a nystagmus is set up an error of pointing in the opposite direction results. A normal person can with the eyes shut bring the index finger or other part of the body back to the position it formerly occupied after a movement in one direction or another. In the case under discussion with a nystagmus to the left, when the person observed drops the hand to the side and then again raises it to the horizontal, he will have moved the arm off to the right of the original position. The same test may be made with the elbow, wrist, hip, and knee.

Six such pointing re-actions are possible, corresponding to the forms of nystagmus. They are:—

1—2. Pointing re-action to the left and right with horizontal nystagmus.

3. Pointing re-action upwards on adduction of the arm with vertical nystagmus downwards.

4. Pointing re-action downwards on adduction of the arm with vertical nystagmus upwards.

5. Pointing re-action upwards with the right hand and downwards with the left on abduction of the arm with rotatory nystagmus to the left (clockwise).

6. Pointing re-action downwards with the right hand and upwards with the left on abduction of the arm with rotatory nystagmus to the right (anti-clockwise).

But these re-actions also depend upon the position of the head, and if the head be turned through 90 degrees, the pointing re-action will turn through the same angle and in the same plane. Thus, with a nystagmus to the left and a pointing re-action to the right, if the head be inclined through 90 degrees on to the left shoulder, the person will now point upwards on adduction, and the re-action to the right will have disapeared.

4. *The falling re-action*, tested with the eyes shut, is the same as the pointing one, but with the muscles of the trunk rather than the limbs. Thus—

When a horizontal nystagmus to the left is set up, the person will *walk round* to the right.

When a horizontal nystagmus to the right is set up, the person will *walk round* to the left.

When a rotatory nystagmus to the left (clockwise) is set up, the person will fall to the right.

When a rotatory nystagmus to the right (anti-clockwise) is set up, the person will fall to the left.

When a vertical nystagmus upwards is set up, the person will fall forwards.

When a vertical nystagmus downwards is set up, the person will fall backwards.

In other words, he falls in the plane of the nystagmus in the direction of the vestibular movement.

When the head is turned through 90 degrees, the direction of the falling is altered through the same angle and in the same plane. Thus, with a horizontal nystagmus to the left and the head inclined through 90 degrees on to the left shoulder, he will fall backwards, but if inclined forwards he will fall to the left.

We may sum up thus:—

a. When a limb is moved into the plane of the nystagmus from a point outside it, the limb goes in a direction opposite to that of the direction of the nystagmus.

b. The person observed falls in the same plane as, but in the opposite direction to, the nystagmus.

c. When the head is moved from one plane into another, the pointing and falling re-actions conform to the new position of the head.

5. *Nausea and vomiting.*—This forms a central reflex through the connections between the eighth and tenth nerves. Clinically it is just the same as seasickness, and is equally variable in different people. Generally it is much worse with the rotatory or vertical nystagmus than it is with a horizontal one. It gets much worse if the position of the head be changed.

METHODS OF PRODUCING A NYSTAGMUS IN A NORMAL PERSON.

1. *Turning experiments.*—The person observed is turned in a chair or on a stool, the crudest form of which is the ordinary music stool.

To produce a horizontal nystagmus the head is held erect.

To produce a verticle nystagmus the head is inclined through 90 degrees to one shoulder or another.

To produce a rotatory nystagmus the head is held forwards or backwards through 90 degrees.

The person may be turned either to the right (clockwise), or to the left (anti-clockwise). The opposite nystagmus is produced in the two cases. In these experiments both labyrinths are tested at once. But it will be convenient to consider first the case of one labyrinth and one canal only.

Considering the endolymph of the right horizontal semicircular canal only, and assuming this to be exactly horizontal—

a. When being turned to the right, the endolymph in the canal goes towards the ampulla.

b. When being turned to the left, the endolymph in the canal goes from the ampulla.

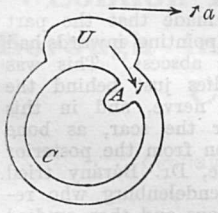
c. On sudden stoppage of the movement in *a*, the momentum of the endolymph causes it relatively to go in the opposite direction, *i.e.*, from the ampulla to the canal or from utricle to ampulla.

d. On sudden stoppage of the movement in *b* in the opposite direction to this, *i.e.*, from the canal to the ampulla or from ampulla to utricle.

In turning experiments you cannot observe the nystagmus while the person is being turned, and, therefore, the conditions under headings *c* and *d* are used.

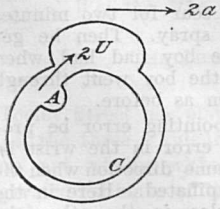
In examining cases in which the left labyrinth had been destroyed, Dr. Bárány found that after turning a patient ten times to the right, nystagmus was produced to the left, and after turning ten times to the left, nystagmus to the right was produced. He further found that the latter lasted twice as long as the former, and in 25 cases the average of the two was 28 and 14 secs. respectively.

The results of this experiment may be represented graphically thus—



U. Utricle on the right side.
A. Ampulla.
C. Horizontal canal.
1. Direction of the flow of lymph on arresting after turning to the right.
1a. Vestibular movement of the eyes set up by this flow.
A horizontal nystagmus to the left, lasting 14 secs.

With the left labyrinth the opposite results were found. Thus—



2. Direction of the flow of lymph on arresting after turning to the right.
2a. Direction of the vestibular movement of the eyes resulting from such a flow of lymph.
Nystagmus to the left, lasting 28 secs.

If these be added together, and both labyrinths be considered, we should expect to find that a nystagmus in a normal person is set up in a direction opposite to the turning, and lasting on an average 42 secs. This is found actually to be the case.

These results agree with those of Ewald, who experimented on pigeons, and found in the horizontal canal—

1. That the movement of the endolymph and the vestibular movements of the eyes and head go in the same direction and the same plane, and, therefore, that the nystagmus is opposite in direction to the movement of the lymph.

2. That movement of the endolymph in the canal towards the ampulla is more effective than that from it, and the proportion is as 2 : 1.

2. *Caloric experiments.*—In this case one labyrinth only is examined with either hot or cold water. When syringed with cold water a rotatory and horizontal nystagmus is set up in the direction away from the ear examined; with hot water, a rotatory and horizontal towards the ear examined. Many modifications of the direction of the nystagmus may be obtained by altering the position of the head. The associated symptoms conform to the nystagmus produced.

3. *Galvanic re-action.*—A galvanic current is used of three to five or ten milleampères; one pole is put upon the mastoid bone, the other upon the mid line of the head or on some indifferent point on the limbs or body. With the cathode on the mastoid a rotatory nystagmus to this side is produced, and with the anode there, one to the opposite side, upon closure of the current.

4. *The fistula test.*—By compression and aspiration of the air through the external auditory meatus. This was the method used by Ewald in his experiments, and is not applicable to the normal person, but can be done in one who has a fistula of his labyrinth as a result of disease. In such cases Ewald's experiments have been confirmed on the human being.

THE CENTRAL NERVOUS MECHANISM OF THESE PHENOMENA.

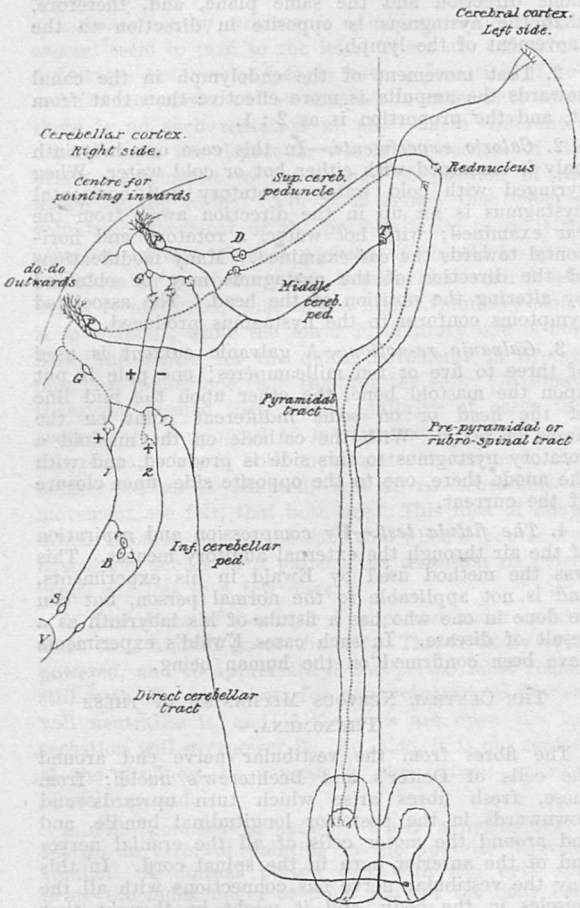
The fibres from the vestibular nerve end around the cells of Deiter's and Bechterew's nuclei; from these, fresh fibres arise which turn upwards and downwards in the posterior longitudinal bundle, and end around the motor cells of all the cranial nerves and of the anterior horn in the spinal cord. In this way the vestibular nerve has connections with all the muscles in the body, and it might be thought that these would suffice for all the phenomena above described. But when the head is turned to the right or left the only things altered are the muscles and joints of the neck, and yet an entirely different motor mechanism is set up. We should, therefore, find fibres of proprio-receptive sense passing up and ending around the cells of Deiter's nuclei to explain this change. No such fibres are, however, known, and we must, therefore, look for another centre to explain these things.

Such a centre must have—

1. Connections with the vestibular nerve.
2. Connections from the spinal cord passing up to it.
3. Connections passing down to the spinal cord with the anterior cornual cells.

Ramon Y Cajal has shown that each fibre of the vestibular nerve sends a collateral into the cerebellum, and that these end by arborising around the granule cells of both hemispheres and of the vermis. Again, the axons of Purkinjé's fibres end in the dentate and other central nuclei of the cerebellum; fibres from these pass by the superior cerebellar peduncle to the red nucleus of the other side. From this nucleus fibres pass down by the pre-pyramidal tract to the anterior cornual cells of the first side. In this way the cortex

of the cerebellum has a connection with the anterior cornual cells of the same side. Lastly, there are the ascending cerebellar tracts.



Scheme of the connections of the cerebellum and of the fibres concerned in a pointing error to the right with the right hand.

B. Deiter's and Bechterew's nuclei.
D. Dentate nucleus.
G. Granule cells of cerebellar cortex.
P. Purkinjé cells.
T. Nucleus Pontis.
S. Scarpa's nucleus.
V. Vestibule.
1. Fibre of the vestibular nerve representing the continual tonus to the cerebellar cortex.
2. Fibre of the vestibular nerve representing a stimulus which produces a horizontal nystagmus to the left and a pointing error to the right. The centre for pointing inwards with the left hand is inhibited, and that for pointing outwards is stimulated. The impulse then reaches the anterior cornual cells only by the fibres dotted in.

We see, therefore, that the cortex of the cerebellum has all the connections necessary for the centre we are considering. It is also known that lesions of the cerebellar cortex are associated with spontaneous errors of pointing and with disorders of falling. We may, therefore, conclude that the cerebellar cortex is the centre for equilibrium, and must proceed to inquire into the way in which this acts.

Bolk has studied the anatomy of the cerebellum comparatively by taking the organ of different animals which have some marked contrast in their musculature, such as the neck of the giraffe and of the mole, and by taking a large number of such contrasts, concluded that the cerebellar cortex of the vermis controlled the trunk, and the area of the hemisphere in the region of the margin between the two surfaces was connected with the muscles of the limbs.

Dr. Bárány thought that if this were so, the pointing reaction must be set up in the hemisphere, and the falling one in the vermis, and looked about for cases in which pointing errors of loss of reaction occurred. When in London he saw four cases in which cysts had been removed from the cerebellum by Sir Victor Horsley. Three had pointing errors on the left side, but no errors of falling, and in these the cysts had all been removed from the left side. One had no pointing error, but had an error of falling. In this case the cyst had been removed from the vermis.

In another case a boy had a right-sided cerebellar abscess with a spontaneous pointing error to the right in the right hand. After the operation the following stages were observed during his recovery:

1. He had a spontaneous pointing error to the right with the right hand, as before the operation.
2. This disappeared, but no reaction to the left could be got.
3. The reaction to the left returned, excepting when the test was made at the ankle and wrist, where it remained gone.

From this the deduction was made that the part of the cortex which controls the pointing inwards had been damaged by the cerebellar abscess. This was the part of the cortex which lies just behind the labyrinth, lateral to the eighth nerve, and in this region the cerebellum lay under the scar, as bone had been removed at the operation from the posterior fossa. On this patient, therefore, Dr. Bárány tried to repeat the experiments of Trendelenburg who removed parts of the skull of monkeys, and then studied the cortical distribution by cooling the brain exposed, and so temporarily paralysing it.

After various unsuccessful attempts with cooled and iced water he at last froze the scar for two minutes on end with an ethyl chloride spray. Then he got the same pointing error as the boy had had when suffering from an abscess, and the boy went through the same stages of recovery then as before.

Both in this boy and when a pointing error be produced with a nystagmus, if the error in the wrist be tested, the finger passes in the same direction when the forearm is pronated as when supinated. Here in the one case it is the radial muscles, in the other the ulnar muscles. From this we must conclude that the cortical areas in the cerebellum correspond to directions in space, and that each muscle is represented in each centre.

This freezing experiment was repeated on a similar case with the same result. In another case the area exposed lay somewhat above and behind this first

area, and when this was frozen the patient pointed to the left with the right hand. There is some reason, therefore, to believe that the centre for pointing outwards lies in this region. Another case where the surgeon had removed a cyst from the cerebellum, and in doing so had damaged the cortex at the very hindmost end, showed Dr. Bàrâny that here may be the centre for pointing downwards. There remain yet to be found a centre for pointing upwards with the limbs, and the various areas in the vermis for the directions of falling.

We can now make some assumption as to the functions of the cerebellum and the way this acts on the muscular system. When a voluntary movement originates from the cortex cerebri, we must imagine that at the same time controlling influences pass down to the muscles from the cerebellum, so that the direction of the movement is perfect. These controlling influences are partly started by the inherent tonus of the cells of the cerebellum and partly by stimuli arising in the vestibule. The influences from one centre exactly balance those from its opposite, so that the movement is properly controlled. When the labyrinth is stimulated in one particular way, a stimulating impulse goes to one centre and an inhibitory one to another, and so the patient points in the direction of the former centre; when, on the other hand, one centre is destroyed, the influence from the other is uncontrolled, and so a pointing error goes in that direction. A stimulation designed to cause a reaction from the damaged centre will, by inhibition of the sound one, neutralise the spontaneous error, but will not cause a reaction in the direction of the damaged centre.

Vienna, *June*, 1912.

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 352.*)

VII.

TOOLEY STREET, AND BEYOND.

"*We, the Men of England . . .*"
The Petition of
THE THREE TAILORS OF TOOLEY STREET.

Tooley Street has played its part in history, so, perhaps, the three "vulgar fractions" of proverbial lore were not wholly without justification for their exaggerated estimate of their own importance.

The street, formerly known also as "Short Southwark," obtains its name as a corruption of "St. Olave's Street." The patron of the church from which the thoroughfare takes its name was the Norwegian king who invaded England in the year 994. From very early times the two Norwegian martyrs, Olav and his son Magnus, have mounted guard over London Bridge, their responsibility shared for a while by St. Thomas of Canterbury in his chapel in mid-stream.

St. Olave's Church is of some antiquity. It is mentioned as early as 1281 in a grant of certain messuages between the church and the Bridge Yard by John, Earl de Warrenne, to the Abbot of St. Augustine's at Canterbury. It was rebuilt in 1737, but in the great fire at Topping's Wharf in 1843 the church was burnt "almost to the walls." In the same fire was destroyed Watson's Telegraph Tower on which was a semaphore apparatus similar to that (only recently superseded by a Marconi installation) on the roof of the Admiralty; from it messages were transmitted with surprising rapidity to the fleet in the Downs.

Opposite the church on the south of the roadway at one time stood a "great house, built of stone with arched gates, pertaining to the prior of St. Pancras, Lewes in Sussex, and was his lodging when he came to London." Like the town-house of the Abbots of Hyde, it was converted to "a common hosterie for travellers" under the sign of The Walnut Tree in Carter, or Kater, Lane. In Queen Elizabeth's reign part of this building was included in the new St. Olave's Grammar School, then founded. A crypt was discovered in 1830 in this lane nearly opposite the church, and in 1834 another crypt-like chamber (with a plain, massive, round pillar in the centre, and a groined roof) that was supposed to have been the cellar of the hostelry. Both originally belonged to the mansion of the priors of Lewes. They were both destroyed in making the southern Bridge Approach.

East of the church stood the town dwelling of the Abbots of St. Augustine, Canterbury, also acquired from the de Warrennes. In the late sixteenth century it fell into the hands of the St. Leger family, whence the name Sellenger's (since Chamberlain's) Wharf. Next eastward, the Bridge House and Yard had from early times been used as a storage-place for stones and timber necessary to the maintenance of the bridge. Later, it was used in turn as a public granary, where a reserve of corn was kept, as a brewery, a bakery, and a coalstore. "Next was the Abbot of Battaile's Inn, betwixt the Bridge House and Battaile Bridge; the walks and gardens, thereunto appertaining, on the other side of the way before the gate of the said house, and was called the Maze." Mill Lane, in which Battle Bridge stands to-day, preserves the memory of the tidal mill attached to the same manor. To this lane was transferred the old Borough Compter.

In our last article we were at a loss to account for certain *fleurs-de-lys*. Referring to the site of the Abbot of Battle's Inn, Stowe says, "there is now an inn called the Flower-de-Luce, for that the sign is three Flower-de-Luces." This inn is mentioned as early as the reign of Edward VI. in a royal charter, and Taylor, the water-poet, in the following century, includes it in his catalogue of Borough inns: "*French flowers doth shew there's good French Wine to sell.*"

The inn yard is marked in the maps of Strype and Rocque, and probably continued until the coming of the railways made a clean sweep of this portion of Tooley Street.

Eastward where is now Stoney Lane (the southern point of embarcation of the *trajectus* of Roman times) stood the mansion of Sir John Fastolfe who was commander of the English forces in the French Wars, and who in 1429 won the "Battle of Herrings." It has been suggested that from his association with Yarmouth the name of Pickleherring Street has been derived. Others, in this connection have noted that there is a record of one man's gift of 6,000 herrings and an acre of land to the Abbey of Bermondsey.

St. Olave and St. John's Grammar School was founded in 1561, and endowed, among other property, with the "Horseydowne" field for "a term of 500 years at the yearly rent of a red rose payable at midsummer if lawfully demanded." This rent was duly paid a few months ago by the presentation of a bouquet of red roses to the warden. The school originated in the bequest of a wealthy brewer named Leeke in 1561. Six years later it was incorporated by Queen Elizabeth, and Charles II. extended its charter in 1674. The old school, in Churchyard Alley, opposite St. Olave's Church, was demolished in 1830, and after temporary habitations in Bermondsey Street and in Maze Pond, was finally established in its present situation by the Tower Bridge. In quite recent years it has been amalgamated with the St. Saviour's Grammar School. The seal, dated 1576, distinguished by *a rose displayed* (the ancient arms of Southwark), represents the master sitting on a high-backed chair at his desk on which is a book, and the rod is conspicuously displayed to the terror of five scholars standing before him.

Prior to 1828, at least, Tooley Street was continued no farther than Potter's Fields. Fair Street, which was the main thoroughfare beyond, is so named from the popular fair held here annually down to the seventeenth century. Horselydown (otherwise, in the past, Horsehighdown, Horseydown, Horsedown, Horsadown) was used as a grazing ground for horses, although some of the natives, to this day, cling to the belief that King John's charger once lay down there with his royal master in the saddle. The parish church, with the "Scammozian" Ionic column, of St. John the Evangelist was built in 1732. Immediately to the east of this site formerly stood Pritchard's Alley, where in 1644 or 5 was born the son of an Anabaptist lighterman and coaldealer who in 1722 founded, to the amazement of the world, a hospital which has not yet ceased to astonish it. Artillery Street gets its name from a large space enclosed in 1636 for the drilling of the Southwark trained bands; the drill hall was converted in 1725 into the St. Olave's Workhouse, which was reconstructed in 1830. Crucifix Lane is named from the Holy Rood of Grace, removed from the conventual church of Bermondsey Abbey at the Dissolution and set up on the Horselydown Common until it was destroyed in 1559. We have been unable to discover any explanation of the curious name of Shad Thames; one suspects a common origin with that of Shadwell across the river. The more easterly of the two St. Saviour's Docks is naturally associated with the Abbey of St. Saviour, Bermondsey. It was known in the eighteenth century as Savory Dock—perhaps another illustration of the *non lucendo* principle. Unfortunately we have no information to offer concerning Hickmann, whose Folly was already committed in the eighteenth century. At that time Jacob's Street and its immediate vicinity were converted into a sort of island by the tidal water in a series of shallow creeks. Tanner Street, or, as it was once called, Five Foot Lane, owes its tortuous line to the course of a stream that formerly discharged itself at Dockhead.

Rotherhithe dates from Saxon times. The name is commonly derived from A.S. *redhra*, a mariner, and *hythe*, a haven, just as Lambeth means *lam-hythe*, mud-haven; although Besant, in search of a contrast stronger than that between *redhra* and *lam*, prefers to make the former "the place of cattle," the latter "of lambs." The popular version of the name has long been Redriffe. A fleet was fitted out here by order of the Black Prince and John of Gaunt. Henry IV. lodged in an old stone house in the district whilst undergoing a cure for leprosy. Still later, our colleague, Lemuel Gulliver, settled in Redriffe after his first voyage in the "Swallow." He was apprenticed to Mr. James Bates, the eminent London surgeon; afterwards studied in Leyden; and was (unusual combination) a ship's surgeon and a pretty liar.

To the south and east the country was, at this period, open fields and meadows, broken by chains of ponds (of which the last remaining is now the ornamental water in Southwark Park) and meandering streams. Early nineteenth century maps show many names which suggest the former character of the country—Providence Island, Reed Bed and Halfpenny Hatch near the Grand Surrey Dock in the Rotherhithe peninsula, the St. Helena Gardens, numerous Ropewalks, and the still remaining Cherry Garden, have all a rural flavour scarcely realised by the district to-day. The most noted of the pleasure-gardens at that time was the Bermondsey Spa (whence Spa Road takes its name) where, about 1770, a chalybeate spring was discovered and exploited. Ten years later the four-acre garden was in full swing as a minor Vauxhall, whose special attractions were a model of the Siege of Gibraltar, painted by the proprietor, Thomas Keyse, and occasional firework displays. In spite (or because) of the merits of the cherry brandy for which the place was particularly noted, the establishment was closed down about 1805.

The Neckinger is an old name. Gerard, 1543—1612, in his "Herball," tells us that the "wild willow herbe is to be found nigh to the place of execution at St. Thomas-a-Watering, and by a style by the Thames Bank near to the Divel's Neckerchiefe on the way to Redriffe." The name is given elsewhere as the *Devol's Neckenger*, and alludes, no doubt, to the hempen cravat that was all the wear at St. Thomas-a-Watering, Tyburn Tree, and other such places of fashionable resort.

Bermondsey Street, called also Barmsie and Barnaby Street, was occupied principally by hatmakers in the eighteenth century. Bermondsey Cross, distinct from the Holy Rood in Crucifix Lane, stood, in earlier times, at the junction with Tooley Street. Gerard speaks of the bitter-sweet as growing "in a ditch side against the garden wall of the Right Honourable the Earl of Essex his house in Bermonsey Streete by London, as you go from the court which is full of trees unto a farm house neere thereunto."

The church of St. Mary Magdalen dates from the thirteenth century. It was a parish church, and so escaped the commissioners at the time of the Dissolution. It has been rebuilt and repaired in 1610, 1680, 1793, and, finally, in 1830. The churchyard in recent times has been converted into a public garden, so one may no longer see the two gravestones for which it was famous. One was to the memory of Mrs. Utton, who in life was tapped for dropsy 25 times and had 157 gallons of water taken from her; the other, to such extremes are people carried by the spirit of emulation, commemorates Mrs. Wood, whose bid for fame lay in 97 tappings and 461 gallons of fluid.

That tidy little place, Bermondsey Square, laid open not so long ago by the Tower Bridge Road "improvements," was, at different periods of history, the site of a royal mansion, a monastery, and a manor house. The district was of some importance in Saxon Times as Beormund's Ey, an island of firmer ground rising out of the surrounding marshland. The palace was situated in the Royal Manor of Bermondsey which William Rufus granted to the monastery, and was an occasional residence of the earlier kings of England. In 1082 Alwin Childe, a wealthy citizen of London, founded a priory of Cluniac monks, which had its own conventual church distinct from the parish church. The monastery became a great focus of pilgrimage both on account of its famous "Rood of Grace," a wooden crucifix found near the Thames, 1117, and for the reputation in treating sickness acquired by the monks. Mention of the Abbey brings into line a group of street names of to-day. Abbey Street is a modern invention and retrospective; Grange Road (formerly King's Road, as Spa Road was once Grange Road) commemorates a small brick building, "probably a granary or storehouse for the provisions of corn, &c., for the use of the Abbey." It was still standing, although much decayed, in Aubrey's time, and an engraving of it is included in his "History of Surrey," 1719. Long Walk, now no more, was a shady avenue of trees within the precincts of the Abbey. Shortly after the suppression, the Abbey became the property of Sir Thomas Pope, who pulled down the conventual church and part of the monastery to provide building material for Bermondsey House. This mansion was visited by Queen Elizabeth when the Earl of Essex occupied it. It was destroyed in the seventeenth century, though some of the gates and ruined walls of the monastery existed much later; the North Gatehouse leading to Bermondsey Square was still standing in 1805.

Of the high roads to the south, the Old Kent Road is by far the oldest. The Romans converted it from an early British trackway to a broad and level road. In Saxon times it was regarded as a continuation of Watling Street. About the spot where it is now joined by Albany Road was, in ancient times, a spring dedicated to the "blissful martyr" of Canterbury, and known as St. Thomas-a-Watering. Chaucer's pilgrims made their first halt when they had ridden "unto the waterynge of Seint Thomas." It was the south-eastern boundary of the city, and until 1740 was the place of execution for the county of Surrey. One other judicial hanging was conducted here in 1834.

Down to the beginning of the last century, Tabard Street (under the name of Kent Street) was the sole continuation, westward, of the Old Kent Road. The name Tabard Street is a quite modern invention, presumably derived from the starting point of the Canterbury Pilgrims who travelled along it. In 1633 it was described as "very long and ill-built, chiefly inhabited by broom men and *mumpers*." The former calling still retains its hold among some of the occupants of the street, and, for all we know to the contrary, the latter also. Great Dover Street was not constructed before 1809, although the Surrey Dispensary, standing at the junction with the much older Swan Street, is dated 1777. Trinity Street, too, is rather earlier, and was the eastward continuation of "Dirty Lane," and afterwards dignified by the name of Suffolk Street East. Trinity Church was built in 1823 on unenclosed land given by the Trinity House Corporation which owns considerable property in the neighbourhood. The weatherbeaten statue on the lawn in front of the church, incredible as it may seem, is said to represent Alfred the Great. The houses of the two squares are of rather later date.

There must have been a Semitic colony of some size about Elim and Rephidim Streets in the eighteenth century, for, in addition, the southern portion of Weston Street was then known as Baal Zephon Street.

St. Bartholomew's Hospital owns a good deal of property in the neighbourhood of the eastern end of Great Dover Street, where their estate office is situated.

In Warner Street (which, a hundred years ago, enjoyed more dignity as Portland Place) nearly all the houses carry on their walls the arms of Bart.'s.

The association of St. Bartholomew's with this vicinity was brought about by the existence of a very ancient lazar-house at the eastern end of Kent Street. It went by the name of Le Loke or Lock, variously derived from the Anglo-Saxon *loc,* shut or closed, from the seclusion necessary to the patients, or from the French *locques,* rags. The name survived until quite recently in the country to the south of the Paragon Crescent, which answered to the name of Lock's Fields, and, perhaps, still remains to-day in Lock's Square, York Street, Walworth. The institution was of high antiquity, possibly dating from Saxon times, but certainly much earlier than the reign of Edward II. In early times when there were at least seven leproseries in or about London, it was under the control of the monks of Bermondsey Abbey. In 1592 "the Lock poorhouse in Kent Street" was formally exempted from the close search then instituted for "traitors and schismatics." Aubrey refers to it in 1719 as an institution belonging to St. Thomas's Hospital for poor, lame, impotent, and others labouring under venereal maladies (leprosy, apparently, having greatly decreased), with Mr. Samuel Palmer and Mr. Field as its surgeons. Later, it came into the possession of St. Bartholomew's Hospital, whence it received patients. Falling into decay, it was first let in tenements, and, finally, taken down in 1809, and its site laid into the Dover Road. In subsequent road-making operations in 1847 a pointed-arch bridge of the fifteenth century was discovered which had originally spanned the little stream (the Effra, Shore, or Lock) that still ran in the open in 1746 when Kent Street was lined with hedgerows.

The St. Andrew's burial ground on the south side of the road near the Lock was consecrated in 1711. There was a Parliamentarian redoubt near the end of Kent Street at the time of the Civil War. In this same neighbourhood is said to have been the "great trench" constructed by Canute, a reminder that *Southwark* itself means "the southern fortification."

(*To be continued.*)

Sport.

FINAL OF THE INTER-HOSPITAL NURSES' TENNIS COMPETITION.

Organised by *The Nursing Times*, Presenters of the Cup.

THIS event was played at the Edmonton Infirmary Tennis Courts, on September 6th. After the guests, numbering about 150, had been introduced to the Matron, the Editor of *The Nursing Times*, and the Staff of the Infirmary, Sister Stewart and Nurse Raven, of Guy's, and Sister Punchard and Nurse Walton, of the Hendon Sick Asylum, took the Court to decide the best of three sets, as the first pairs of the respective finalists. The Guy's pair won quite easily by 6–1, 6–2, 6–1. The feature of this match was the very excellent serving of Sister Stewart, which had a swift and decided cut on it; she was well supported by Nurse Raven, who displayed a very sound knowledge of back hand play, her cross court drives being unplayable. After a short interval the Guy's second pair, Nurse Maher and Nurse Hodgkinson, opposed Nurse Huffer and Nurse Hartigan, of Hendon; in this match the style of play was entirely different, and although the Guy's pair won comfortably by 6–3, 6–1, 6–3, it was a much harder fight, chiefly owing to the spirited play of Nurse Huffer, of Hendon, who was untiring in her efforts. Nurse Maher was very noticeable for her extremely steady play, and was most ably supported by Nurse Hodgkinson, who often went to the net and volleyed with effect. We most sincerely congratulate our Nurses on their winning the Cup for the first time, and we trust it will remain for many seasons in the Nurses' Home. After the Cup had been presented to the winners by Mr. Percy Alden, M.P., and various speeches had been made, the visitors retired to the Nurses' Home, and partook of tea as guests of *The Nursing Times.* Amongst the Guy's supporters we noticed many members of the Nursing Staff, including Sister Evelyn.

It is to be hoped that encouragement will be given to further contests between the Nursing Staffs of the various Hospitals, and the suggestion has been made that sanction might possibly be obtained for the construction of a lawn-tennis court in the Park, for the benefit of the Nurses and their tennis.

Birth.

PEARSON.—To Dr. Arthur Pearson, M.B. Lond., etc., of The Katanga, and Mrs. Pearson, on August 23rd, at Tunstall Rectory, Suffolk, the residence of her father, a son.

Marriages.

BRIDGER—AYLWIN-FOSTER.—On August 27th, at S. Andrew's Church, Biggleswade, by the Rev. R. S. Bagshaw, Vicar, assisted by the Rev. T. M. Plant, Robert Daniel Bridger, M.R.C.S., L.R.C.P., third son of the late Robert Bridger, of Monte Video, to Dorothy Noel Aylwin, second daughter of the late Rev. Edmund Clement Aylwin-Foster, Rector of Clifton, Beds.

BURNEY—ROLLESTON.—On August 20th, at Nun's Cross Church, by the Rev. A. W. Moore, Rector of the Parish, Captain Walter Henry Skardon Burney, R.A.M.C., son of Walter Burney, Esq., M.D., of Blackheath, to Phœbe Elizabeth, youngest daughter of the late Henry Rolleston, of Glasshouse, King's County.

DOBSON—KING.—On the 4th September, at S. Olave's Church, London, by the Rev. H. L. Ogle, M.A., Vicar of Malton, Maurice Rowland Dobson, M.B., B.S. Lond., L.R.C.P., M.R.C.S. Eng., younger son of Jabez Dobson, Woodbank, Ilkley, to Ethel May King, granddaughter of the late William Wells King and Mrs. King, of Malton.

MATTHEWS—HUGHES.—On August 17th, at S. Stephen's Church, East Twickenham, by the father of the Bridegroom, Arthur Llewelyn Matthews, of 11, Montpelier Row, Blackheath, second son of the Rev. B. Matthews and Mrs. Matthews, of Upton, Northampton, to Emilie Grace, third daughter of the late Captain Hughes and Mrs. Hughes, of Hendre Wen, Portmadoc.

LIPSCOMB—MILMAN.—On 7th September, at S. Alban's Abbey, by the Very Rev. the Dean, W. J. Lawrance, D.D., assisted by the Rev. Leonard Westall, Eustace Henry Lipscomb, M.B. Cantab., J.P., of S. Albans, to Mildred Charlotte, fourth daughter of the late Lieut.-Colonel Everard Stepney Milman, R.H.A.

Ed.—J. A. R.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 633.] SEPTEMBER 28, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	385–386
The Doctor	387–388
Papers by Guy's Men	388
Nitrous Oxide and Oxygen in Conservative Dentistry. By Douglas Wain, L.D.S.Eng.	389–391
Change of Address	391
Notes on Colonial Life for Medical Men By E. P. Minett	392–393
Correspondence	393
The University of London Officers' Training Corps	393–394
On a Students' "Squib" of 1823	394–396
The Treatment of Inguinal Hernia in Children. Clinical Lecture by Mr. Philip Turner	397–400
Appointments	400
Gazette Special Pathologist	400
Nursing News	401
The Christian Union	401
Reviews, etc.	402
Sport	402–403
Lectures for Sessions 1912—1913	404
Guy's Hospital Clubs' Union...	405–407
The Sciences	407–412

Passim.

TO those who have, in the present year, made Medicine the career of their choice we would offer our most sincere congratulations. We would congratulate them not merely on the excellence of their taste but also on their courage, and while endeavouring to refrain from the usual platitudes relating to the greatness of our profession, we would indicate, by way of encouragement, that the above-mentioned attributes are some of the very many which are essential for the maintenance of our professional honour and prestige.

Stevenson has written a magnificent eulogy of the doctor, which should remain for all time as a model for members of our profession:— "There are," he says, "men and classes of men that stand above the common herd; the soldier; the sailor and the shepherd not unfrequently; the artist rarely; rarelier still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization . . . Generosity he has, such as is possible to those who practise an art, never to those who drive a trade; discretion tested by a hundred secrets; tact tried in a thousand embarrassments; and what are more important, Heraclean cheerfulness and courage."

That is the ideal set before us in a layman's golden conception of the real. We consider that the quotation is its own recommendation.

STEVENSON, it will be noted, incidentally lays stress upon the importance of optimism: and, setting aside for the moment considerations of optimism in its purely professional application, we would ourselves urge the necessity for a much wider cultivation of the creed of hopefulness. In the medical profession, as elsewhere, pessimists have of late become too prevalent, and doubtless the intending medical student has already been embarrassed by their superfluous attentions.

That the justification for pessimism far more rarely exists than the actual frequency of its occurrence would lead one to suppose is an obvious truism. In fact, it is questionable if pessimism is ever justifiable. That it is excusable sometimes we will admit; but its employment for the purpose of influencing minds, as yet untainted, is, we consider, unpardonable.

IT does not necessarily follow that, because prospects are uncertain, they are also evil. That the medical profession in general, and practitioners in particular, are confronted with a host of difficulties and dangers, is undeniable; and to issue warnings on that score is obviously reasonable and just; but the attempts which are made to discourage those who have already chosen medicine as their career, are as foolish as, we trust, they will prove inefficacious.

As Passimists, and hence in opposition to all pessimists, we would remind our future col-

leagues that evil rumours are the forerunners, and the accompaniments of every revolution. The fact that they—our future colleagues—remain undeterred in spite of gloomy forecasts, may be interpreted as pig-headedness by some. We only see in their decision that enthusiasm, which is as essential for medical progress as it is for a successful issue to the present revolution; and that is the reason why, in this year especially, we extend to them our congratulations and our welcome.

Whether, by the time they are qualified, the general practitioner will be extinct or not, or whether by that time the medical profession will have become a state service, we cannot say; but one thing is certain, and that is that there will still be plenty of valuable work for them to do. If our profession is able to keep continually in view the claims of the community, as well as its own claims—and we cannot help feeling that it would have strengthened its position tremendously of late, had it paid more attention to other obvious flaws in the Insurance Act than those affecting its own welfare—it cannot, surely, fail to remain a flourishing and an honourable profession.

In proceeding from the general to the particular, we would congratulate still further all those who are about to become men of Guy's. No Hospital has finer traditions, and no School offers better opportunities for successful study than ours. One of our especial boasts is the encouragement always given at Guy's to practical proficiency, as opposed to a proficiency which is merely academic. The success of Guy's men all the world over is in no small degree due to the fact that, both before and after qualifying, they have been allowed a wider scope in the actual practice of surgery, medicine, and midwifery, than it is customary to concede at the majority of hospitals.

One of the greatest stimuli that men will find in their studies at the Hospital is the progressive increase in the interest of their work as they pass from stage to stage. The delights of the dissecting-room are infinitely superior to those of the biology and chemistry laboratories; and the wards will cause all previous labours, valuable though they be in actuality, to appear comparatively paltry and uninteresting.

If the giving of advice be considered one of our functions, we would only urge men not to work too much; not to work too little; and to endeavour to become imbued, as soon as possible, with that invaluable spirit of *camaraderie*, which is so much the feature of all hospital life and of life at Guy's especially.

We have been asked to draw attention to a rearrangement in the rota of Clinical Lectures. Henceforth, one lecture will be delivered every Wednesday throughout the whole year, including the summer months, surgical and medical subjects alternating. The Staff have arranged, as far as may be possible, to leave the hour allotted to the lecture free in respect of other duties, so that it may be possible for everyone, or nearly everyone, to attend. All those, therefore, who are working in the wards, will be expected to make a point of attending; and they will certainly be well advised to do so, for the Clinical Lecture stands quite apart from the routine lecture, both in interest, and in educational value. In many of the continental schools the Clinical Lecture is the great feature of the week, and the audiences are habitually crowded and enthusiastic. We see no reason why our Clinical Lecture should not likewise become the feature of the week.

The Physical Society's Annual Conversazione has been fixed for Friday, October 4th, at 8.45 p.m. Sir James Goodhart, the Hon. President, will receive the guests, and will be supported by the Hon. Vice-Presidents:—Sir George Savage, Dr. Frederick Taylor, and Mr. Charters Symonds. In addition to exhibits of instruments and books, there will be demonstrations of recent methods of Clinical and Pathological investigation. Invitations will be issued to all new students, and also to old Guy's men, and we feel sure that fresher and veteran alike will be eager to further, by their presence, the success of one of the most interesting, social, and scientific evenings of the year.

J. A. R.

The Doctor.

"Lydgate did not mean to be one of those failures, and there was the better hope of him, because his scientific interest soon took the form of a professional enthusiasm; he had a youthful belief in his breadwinning work . . . . and he carried to his studies in London, Edinburgh, and Paris, the conviction that medicine as it might be was the finest profession in the world; presenting the most perfect interchange between science and art; offering the most direct alliance between intellectual interest and social good."—(*Middlemarch, George Eliot.*)

It would be interesting to ask each reader of this GAZETTE, "why did you decide to go in for medicine?" Probably not very many have been put into the profession, as by a *vis a tergo*. The work is of too peculiar a character, and the preliminary training too long and too expensive for that to be a common case. Yet successful examples of this mode of entry are to be found. Sir Benjamin Brodie seems to have been one of them. A good many enter the profession because their fathers were doctors before them, and it was their path of least resistance. They have never thought of doing anything else. The larger number may be supposed to have made the choice deliberately, though, perhaps, they have never analysed their motives in doing so. It is, indeed, a noteworthy feature about the medical profession, as was pointed out by Sir James Paget, that it offers a congenial work to many very different types of men. It is a City, into the heart of which lead many gateways.

To the scientific mind it has always been attractive, for its best work is based on science, and it is one of the very few walks in life in which the man of scientific bent can turn his talents to account. The mathematician, the physicist, the chemist, the physiologist, all have a chance of finding work of the kind which they can do best. Yet it must be admitted that the greatest scientific minds are not always at home with us. It may be that the lamentable vagueness and uncertainty which clouds so much of our territory of occupation repels them and often leads them out of medicine into other fields. It will be remembered that there were those who said of the immortal Harvey, that they "did not much admire his therapeutic way." Thomas Young, too, the founder of Egyptology, and of the undulatory theory of light, has left no mark upon the history of medicine, although he was, in the opinion of Helmholtz (who himself passed via medicine to physiology, physics, and mathematics), the greatest scientific genius since Newton.

But medicine has another gateway, and this it is through which most of us come in. Men in general like to feel that they are doing something with their knowledge. They care less for science than for what Bacon called "fruit." They could not sympathise with an eminent mathematician, who claimed for pure mathematics, the paramount recommendation that by no possibility could his favourite study be made any use of. And if it is an attraction to most of us to be told that in medicine we may not only learn what is interesting, but at the same time make our learning to be useful, it is no wonder, that in spite of many and serious drawbacks, we become doctors. Moreover, with this feeling there is associated another, not always mentioned, but often present. I mean the feeling of humanity, which is moved by suffering. It may be found, of course, in other professions, but of our profession alone is it an indispensable and integral part.

Next, we have to notice another thing. Although the qualities which go to the making of the doctor may be very differently developed in different practitioners, no very good doctor can fail to have about him something of the scientist, something of the practical man, and something of the humanitarian. He must have science, for his study is of the structure and mode of working of the most highly developed organism which breathes the breath of life. And he is nothing if not practical. His mind must not be merely a "storehouse for other men's lumber," as Locke has it, but must hold itself ready to focus all the knowledge it commands on the problem before it, ready to bring to bear all the facts and principles of science which may be needed to control the conditions which may make or mar the life of all the tissues of the body. Moreover, since the wonderful organism in question is the subject of anatomy and physiology only from a single, and that an abstract point of view, and considered otherwise, is a man, or woman, or child, it follows that the perfect doctor must be sensitive to all that the word personality implies. He must know, and he must act, and he must feel. Respecting manhood, reverencing womanhood, and gentle to childhood, he will do his utmost to take human nature as it is, not expecting too much, and remembering, as Spinoza observed, that the first thing to be done is not to praise, not to blame, but to understand man's nature. And, in truth, there is always need to remember that the completed study of a case, as well as its successful treatment, generally takes us beyond the confines of pathology

and pharmacology. As a quaint old writer has remarked, "reasons drawn from the urine alone, are as brittle as the urinal."

Perhaps the picture of the perfect doctor which we are endeavouring to outline, may be thought to indicate an impossible combination of qualities; so we hasten to add that there is, happily, much diversity of gifts. If it were otherwise we fear that some departments of practice of great value to the community might be but poorly filled. It is difficult to imagine two classes of professional work less alike than the practice of the well-beloved old family doctor, who settles the lives of innumerable old ladies in every detail, from the tea they drink to the investments they make, and that of the operating surgeon, whose days and nights are devoted to the higher surgery, or of the bacteriological specialist whose mind works largely in terms of "cocci," and "lysis," and "complement." These could ill change places without disastrous results to their reputation, but yet if in a quiet hour they stop to look out upon the wider bearings of their work, they may be encouraged by the knowledge that they are contributing, each in his own way, to the perfect doctor, who is no individual man, it may be, but an ideal or composite picture, such as Sir F. Galton introduced, for the representation of the type which includes them all.

Meanwhile, let us reassure the first year's man by a few practical reflections. Let him remember that, as Aristotle used to tell his pupils in his lectures long ago, the virtues, both of head and heart, are, like the acquirements of the hand, to a great extent matters of cultivation and habituation. No one expects everything at once, and the care and experience which has mapped out the course of training through which he passes will lead him on so gradually, that when he leaves Guy's he will know a good deal already, and be put in the way of knowing more if he will. Life is short and art long, and you will find your years at Guy's none too many for the work before you.

At first your science will take you all your time. Your more ignorant friends will be astonished to find that you are spending your days over bones and dissections, and laboratory work. They supposed you to be immersed in the technique of operations and auscultation; and you yourself will, perhaps, feel impatient to get on to the practical part of your student's career. Never mind. Your present work is all to the good. You are learning matters of fact which you will never regret having learned, and at the same time you will be getting an insight into scientific method. Science, as Huxley said, is organised common sense in regard to its methods, and there is no other safeguard against credulous empiricism and foolish quackery. Later on, perhaps, you may wish that science had spread her beneficent wings more widely over the dark places where medicine still stumbles somewhat blindly, and calls for more light.

It will not be long before you are in the wards, and so you will pass by stages of graduated difficulty and responsibility from less to more. Experience in ever widening circles will increase your hold on the principles and practice of your adopted profession, and whichever may have been the gate by which you made your entry, you will have learned to know the others. The ideal of the perfect doctor will still be before you, but the image of that ideal will have shaped itself into something not wholly unattainable, the best part of which you will always be glad to remember as something which you learned at Guy's.

"Haec olim meminisse juvabit."

Papers by Guy's Men.

Fleet-Surgeon C. M. Beadnell, R.N.: Some Environmental Factors in Relation to Disease Afloat. Read at Public Health Congress, Berlin. Published, Portsmouth: Holbrook.

John Howell, M.B., B.S., F.R.C.S.: The Chief Use of the Peritoneum: A suggestion. Read before the Gloucestershire Branch of the B.M.A.—*British Medical Journal*, 21st September, 1912.

F. W. Langridge, M.R.C.S., L.R.C.P.: Clinicalia.—*Clinical Journal*, 18th September, 1912.

G. T. Mullally, M.B., B.S.: Chronic Intestinal Stasis: A Case of Trigeminal Neuralgia treated by Ileo-Colostomy.—*Lancet*, 21st September, 1912.

E. H. Starling, M.D. Lond., F.R.C.P., Lond., F.R.S., and another: On the Nature of Pancreatic Diabetes (preliminary communication).—*Lancet*, 21st September, 1912.

Captain H. Stott, I.M.S.: An Outbreak of Urticaria Epidemica due to Mucuna Pruriens—the Cowage Plant.—*Indian Medical Gazette*, September, 1912.

Major M. H. Thorneley, I.M.S.: Design for the Out-Patient Department of a small Indian Hospital.—*Indian Medical Gazette*, September, 1912.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette." Guy's Hospital, London, S.E.*

DARE
QUAM
ACCIPERE
Guy's Hospital
October
Mr Guy renews his Youth.
1912.

Nitrous Oxide and Oxygen in Conservative Dentistry.

BY DOUGLAS WAIN, L.D.S. ENG.

THE general disagreement as to the best agent for rendering conservative dental operations painless leaves no doubt that we have not yet attained a satisfactory solution of this difficulty. It is surely some reflection on the dental profession that the public still associate a dental operation with considerable pain. The one great question that is ever before the dental surgeon is, how can operations be performed painlessly? The answer to this question is, by means of a suitable anæsthetic, but to decide which is the suitable anæsthetic is by no means easy. The possibilities of a general anæsthetic being used in painful dental operations, excluding extractions, have not yet been realised to any great extent. The absolute reliability and the absence of any effect on the dental tissues render a general anæsthetic, in some cases, invaluable. Although the use of drugs and local anæsthetics seems simpler and less trouble both to the operator and the patient, we cannot, in every case, rely on these methods to produce the desired result.

Conservative treatment is, of course, the first duty of a dental surgeon, but in how many cases does a dentist extract a tooth which, had he means at hand of treating it painlessly, could be saved? I do not wish to convey the idea that we must never devitalize a tooth with a drug, or remove a pulp under the influence of a local anæsthetic, either pressure, ordinary injection, or intra-alveolar injection. In some cases the use of a drug or a local anæsthetic is contra-indicated, and these limitations cause us often to extract a tooth which, if the patient could better bear the pain, it would be wiser to save.

Having claimed that a general anæsthetic has advantages not possessed by drugs and local anæsthetics, it may be asked what general anæsthetic do I recommend as having these advantages. Chloroform, ether, and mixtures of the same are ruled out of the question in dental operations owing to the position of the patient. Nitrous oxide gas, administered by the ordinary method, does not produce anæsthesia sufficiently prolonged to meet our requirements.

For some time past Mr. H. M. Page has been administering, by means of a nasal apparatus, nitrous oxide combined with oxygen in major operations with great success, and it was entirely due to him that I saw the possibilities of this anæsthetic in conservative dentistry. At his suggestion I did a series of conservative dental operations using this anæsthetic, and, considering the experimental stage both of the anæsthetic and its application in this branch of surgery, all the operations were highly satisfactory to me. The operations with very few exceptions were performed in the evening between five and seven o'clock. The patients were instructed to have a light lunch and no tea. Before commencing, it was explained to the patient that he might possibly know that something was being done, but would feel no pain. Continuous nasal administration of nitrous oxide gas with oxygen by a Trewby's nasal inhaler was the method employed. The ordinary nasal inhaler, without oxygen attachment to the nose-piece, and bag were used, with a similar bag for the oxygen. The gas and oxygen were mixed by means of a special connection fitted to the apparatus, at the point of which the gas tube bifurcates to pass on either side of the patient's head. This special connection, devised by Mr. Page, is in the shape of a Y, and fitted with a tap to regulate the oxygen, and valves to prevent the back pressure of the gases. This arrangement, by doing away with a third tube to the nose-piece, gives the operator more freedom and removes the tendency of the nose-piece to tilt.

The following are the notes of the cases performed:—

Case 1.—F., aged 17 years. During anæsthesia a sensitive cavity in the upper right first pre-molar was prepared, the pulp was removed, the root canals filled with a dressing of oil of cloves, and sealed in with gutta percha. The pulp of the upper left first pre-molar was next removed, but during the filling of the root canals the patient vomited, so the operation was stopped and a dressing of gutta percha applied. The duration of anæsthesia was $7\frac{1}{5}$ minutes.

Case 2.—F., aged 16 years. The two upper central incisors of this patient were very hypoplastic. The crowns of these were ground away with a sharp stone, and the pulps removed. After the first had been finished, which took three minutes, the patient vomited. She

was allowed to recover and then again anæsthetised for four minutes whilst the second tooth was treated as the first. After a short rest the patient was well enough to go home.

Case 3.—F., aged 23 years. This patient first attended the Dental School at Guy's Hospital with an exposed pulp in the lower right first molar. All the different known methods for destroying the pulps of teeth were tried, without any result except to cause the patient great pain and to make the tooth very periostitic. An application of arsenic was first tried. Next, pressure anæsthesia with cocaine was attempted. As these had no effect, an intra-alveolar injection was made with novocaine. This latter method, which is effective in the majority of cases, was on this occasion useless. It was decided to give the patient gas and oxygen and to remove the pulp during anæsthesia. The night previous to the operation the patient was given Pil. Col. et Hyos., gr. v. She complained of headache and sickness before the operation which she thought due to this medicine. During anæsthesia the pulp chamber was well opened up, and three root canals cleaned and each one dressed with oil of cloves. The cavity was then sealed with gutta percha. The time taken was 21 minutes. During the whole time the patient was perfectly still and showed no inclination to vomit. She lay down for half an hour, after which she went home. She did not go to business the next day, not feeling equal to it. The patient was a little run down before having the gas, probably due to the pain she had suffered from the tooth previous to this operation.

Case 4.—F., aged 14 years. A very nervous and self-conscious little girl, with a cleft palate and double hare lip, who was very difficult to treat in the ordinary way. Under the gas a cavity was prepared, the pulp removed, and a dressing inserted in the root canals. The time taken was 20 minutes. She quickly recovered from the effects and did not feel ill.

Case 5.—F., aged 19 years. A very sensitive cavity in the upper right central was prepared, the pulp removed, and dressing inserted in the usual way. The time taken was 8 minutes. Towards the end of the operation the patient commenced to retch, and, as the painful part was over, the anæsthetic was stopped and the dressing inserted. The patient quickly recovered and felt no bad after-effects.

Case 6.—M., aged 14 years. A Russian Jew of very weakly appearance. A few days before he had fallen down and fractured his two central incisors. The roots were stoned down to the gum level, the pulps removed, and dressed. After the first tooth had been done the patient vomited. After a short rest he was again anæsthetised, and the second tooth finished. The first took $7\frac{1}{2}$ minutes and the second 6 minutes, this latter time including the extraction of three other teeth. After lying down for 20 minutes the boy went home feeling quite well.

Case 7.—F., aged 17 years. Patient had been under treatment for some time for an exposed pulp in a molar which the usual methods failed to relieve. The pulp was removed and the three root canals dressed with oil of cloves. The time taken was 27 minutes. At the end of the first 8 minutes the oxygen cylinder ran out and the patient was kept under by N_2O + air until more oxygen was got, during which period she commenced to retch, but did not vomit. For the remaining time the patient was perfectly quiet. The patient was seen again the following day, when she was quite well, not having felt any bad effects from the operation.

Case 8.—M., aged 30 years. The root of the upper right central incisor was "coned up" and prepared for an artificial crown. The operation took 38 minutes to complete, during which time the patient remained perfectly still and showed no signs of vomiting. He rested for a short time, and then went home feeling no effects of his 38 minutes' anæsthesia. This patient a week later had another root similarly treated with a local anæsthetic. After this operation he expressed a preference for gas and oxygen.

Case 9.—M., aged 15 years. A very much overgrown schoolboy of a bluish-red colour, and a prominent thyroid isthmus. His cardiac action was slow at the commencement. On this occasion the rubber dam was applied to the upper left first molar, being kept in position by a clamp on the tooth and a wire frame outside the mouth. A large rubber tube was placed between the rubber dam frame and the angle of the mouth to allow for expiration. A cavity was prepared, the pulp exposed and extirpated. The three root canals were then dressed with oil of cloves and the cavity sealed in with gutta percha. The time taken was 15 minutes. He then strained a few times, but did not vomit. After the operation the patient lay down for 15 minutes, after which he went

home. He did not feel quite himself again until he had slept.

Case 10.—F., aged 27 years. In order to lessen the possibility of vomiting, the patient's throat was sprayed with a 5 per cent. solution of cocaine. She was then anæsthetised, and a very sensitive cervical cavity partly prepared.

Case 11.—F., aged 24 years. This patient had been under treatment for some time for pain in several teeth with much periodontitis. The ordinary methods of treatment gave the patient much pain. Following the removal of a pulp by the intra-alveolar method of injection, the patient was in pain for over a week. Under the nitrous oxide and oxygen the pulps of two of the offending teeth were removed, and dressed in the usual way. The time taken was 31 minutes. The patient was perfectly quiet the whole time and did not retch once. A saliva ejector was used, and just under four ounces of saliva was received into a receptacle. She lay down for 20 minutes, and then went home feeling perfectly well. This was the only time that an ejector removed the saliva satisfactorily.

It can be seen from the above notes that there is ample scope for the use of nitrous oxide and oxygen in conservative dental surgery. The most instructive cases are Nos. 3, 7, 8, and 11. In Nos. 3, 7, and 11 had it not been for this method of treatment the teeth must have been extracted. In no case was there any periodontal or other trouble following the operation, and in those cases in which there was previous periodontitis (Nos. 1, 3, 7, and 11), it quickly cleared up. Case No. 9 demonstrates that there is nothing to prevent the application of the rubber dam. Permanent fillings were inserted after a few days. No pain was complained of at any time, and there was no movement or interference with the operator except for the momentary retching reported in the notes. I was able to work as easily and quickly with the patient under the influence of this anæsthetic as in the ordinary way, if not more quickly, because I could manipulate my instruments without fear of causing the patient pain. The only drawback was the retching, and where vomiting occurred it was principally mucus, and retching ceased immediately. Both Mr. Page and myself are quite convinced that this vomiting was due to the collection of saliva. This is proved by the fact that in those cases in which there was little salivation, or in which I was able to control the saliva, there was no retching, but in those in which the patient freely salivated there was always retching or vomiting. An efficient saliva ejector will, I am sure, remove this, our only difficulty.

The method of treatment here recommended is not applicable in every case, nor, indeed, is it necessary. There are patients who will go to any amount of trouble if their dental treatment can be performed painlessly, and there are patients whose temperament makes a painless operation a *sine qua non*. I hope I have made it clear that my object in writing this paper is to bring before the dental profession the possibilities of nitrous oxide and oxygen as an anæsthetic in conservative dentistry, not as a means of performing every painful operation, but as a method of treatment which will, in some cases at least, prove invaluable.

In conclusion, I should like to be permitted to thank Mr. H. M. Page not only for his suggestion, the result of which is this paper, but also for the able way in which he administered the anæsthetic in all my experiments. My thanks are also due to Sir Cooper Perry for giving Mr. Page and myself special facilities in connection with the Dental School at Guy's Hospital for testing this method in conservative dentistry, to Mr. E. B. Dowsett for his many valuable suggestions, and to Sister Out-Patients and her staff for their assistance at the operations.

Change of Address.

R. R. Adams, L.D.S., from Guy's Hospital to Royal Naval Barracks, Devonport.

Captain F. A. Barker, I.M.S. Present address: Sacombe Rectory, Ware, Herts, until October 2nd, from which date it will again be Port Blair, Andaman Islands.

Captain G. B. F. Churchill, R.A.M.C., from Meiktila, Burma, to c/o Holt & Co., 3, Whitehall Place, S.W.

Surgeon G. B. Cockrem, R.N., from Royal Naval Barracks, Portsmouth, to H.M.S. "Russell," 4th Battle Squadron, Home Fleet.

W. H. Talfourd Jones, M.R.C.S.Eng., L.R.C.P.Lond., from 49, Craven Park Road, Harlesden, to 42, Craven Park, Harlesden, N.W.

T. B. Layton, M.S., F.R.C.S., from 61, Primrose Mansions, Battersea Park, to 48, Queen Anne Street, W.

W. Grant Oliver, L.D.S. Eng., from Royal Naval Barracks, Devonport, to 30A, Wimpole Street, W.

Lieut. E. A. Penny, I.M.S., to c/o Grindlay, Groom, & Co., Bombay.

W. R. Ransford, L.D.S. Eng., from Rangoon, Burma, to c/o T. Cook & Son, Ludgate Circus, E.C.

Notes on Colonial Life for Medical Men.

By E. P. MINETT,
Assistant Government M.O.H. and Bacteriologist,
British Guiana.

The conditions of life in the Colonial Service seem to be very imperfectly realised by the recently qualified medical man; and if he proposes to join one or other of the various medical services in the different Colonies, it is often very difficult to get reliable information.

The following are a few brief notes touching the question of salaries, mode of living, and sporting facilities in British Guiana and the West Indies generally; the only places of which I have an intimate knowledge being British Guiana, Barbadoes, and Trinidad. There is, as a rule, no entrance examination for the Colonial Services—except for special appointments such as M.O.H., Pathologist, Bacteriologist, etc.; the usual qualifications are, of course, necessary, together with at least twelve months' practical experience.

On joining the British Guiana Medical Service the pay is £300 per annum, with full furnished quarters; there are also various small allowances. For example, if one is away for the day, 12s. 6d. is allowed for food, and 6s. 4d. for the half-day. First-class fare is always granted to a Medical Officer travelling on duty. Under the new regulation the salary cannot remain at £300 for more than two years: the next grade is £400 to £500, and then £600 to £700: it rises automatically during the whole time by stages of £20.

The M. O. in Hospitals is always provided with free quarters, and when a man rises to be chief surgeon at a hospital he is usually allowed £100 per annum in lieu of private practice. If, however, he is placed in charge of a district he draws his salary, plus a travelling allowance to cover the cost of keeping a horse and trap or motor, and in addition is allowed private practice. This latter, of course, depends on what he makes it. The pension rate is one-sixtieth of the salary for every year of service up to thirty years, the maximum being thirty-five years. This roughly means that a man serving thirty years will get half his salary for a pension.

There are three fair-sized hospitals in the Colony; the largest, situated in Georgetown, has 600 beds; there are also several smaller ones in various districts. The M. O. for the district also has the charge of one or more sugar estates, each of which is provided with a small hospital.

The leave obtainable is as follows: six weeks on full pay and six weeks on half pay for each year of service; not more than two years' full pay can, however, be obtained at any one time. The reason for this is that when a man is on leave his subordinate, who is acting for him, draws half his superior's and half his own pay, after the first three months. For example, if your chief is drawing £800 a year and your own salary is £400, whilst acting for him during his absence after the first three months, you would draw pay at the rate of £600 per annum. When on leave a M. O. does not draw his house allowances, but only his salary, the allowances going to the man who is acting for him.

The above is a rough outline of the scheme of salary in most colonies, except West Africa. In Trinidad the initial salary is only £250, and in Barbadoes there are no pension rights.

As regards the cost of living, a single man can live in British Guiana about 20 per cent. cheaper than in England. Barbadoes is cheaper still, but Trinidad is considerably more expensive than any other island in the West Indies. If married, the cost of living is about 20 per cent. higher in British Guiana than in England; in Barbadoes about the same as at home, and in Trinidad the cost of living is much higher, about 40 per cent. A married couple can live comfortably in British Guiana on £350 to £400 a year, provided they do not entertain to any large extent.

The climate of most places in the West Indies is very good, especially in Barbadoes. In British Guiana the average temperature is about 70° to 75° F., with very little deviation; there are no special seasons, and a strong breeze is always blowing. The rainfall varies with the district, and ranges from 60 inches to as much as 120 inches per annum.

The front lands of the colony of British Guiana are very flat and in places below sea level. The irrigation is carried out by means of trenches, sluices, and large embankments. The largest industry is sugar-planting, and for this purpose coolies are imported from India; the care of these imported labourers is one of the principal duties of a medical officer. Lesser industries are those of rice, coffee, rubber, limes, etc.

The social life of the West Indian Colonies is very much what one makes it. The society is that of a country village, where the number of one's acquaintances is necessarily limited; amusements are scarce and must be provided by oneself. There is plenty of sport in most places, especially British Guiana, Barbadoes, and Trinidad, where there are very good golf courses; cricket, tennis, rifle practice, and rowing can be had most afternoons from 4 to 6.30 p.m. Fishing is not so easily obtained in British Guiana as in Barbadoes or Trinidad, as it usually means a day's journey up the rivers to suitable places; but the sport is usually worth the trouble. Shooting on the estates such as duck, plover, geese and snipe is good at various times of the year, but is rather erratic in character. The larger game such as deer, tigers, etc., are rare, and only to be found after a few days' journey up country; but alligators are plentiful if the hunter does not mind being eaten by mosquitoes and sand-flies.

The objectional feature of the Colonies is the large number of insects. Mosquitoes and sandflies are a perfect pest in some districts, necessitating the use of mosquito-nets after sundown; although within the last few years Georgetown has greatly improved in this respect. Europeans in the West Indies usually enjoy fairly good health, especially if they sleep under mos-

quito-nets and take prophylactic doses of quinine occasionally, five grains two or three times a week, and avoid the use of alcohol until after sundown. But the native death-rate is high, especially among the children, and is due almost entirely to improper feeding. The Colonies are no place for an idle man or woman; the ideal plan is, in my opinion, to work hard and take as much leave as possible in between times.

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

Dear Sir,—Will you kindly allow me to announce through your columns, that we have two or three vacancies for additional residents at the Bermondsey Settlement, Farncombe Street, Jamaica Road, S.E. The Settlement is within easy reach of Guy's Hospital, is healthily situated and well equipped. I should be very glad if some Guy's men would become residents with us, and take some share in our educational and social work. I shall be glad to furnish all information, as to conditions of residence and tariff, to any of our readers who may write to me on the subject.—Thanking you for your courtesy, believe me, yours faithfully,

Bermondsey Settlement, Farncombe Street, Jamaica Road, S.E.
September 12th, 1912.

J. SCOTT LIDGETT, Warden.

Guy's Hospital Musical Society.

Dear Mr. Editor,—May we, through the medium of your columns, draw the attention of freshmen to the Musical Society, which is a combination of the one-time Students' Glee Club and the Nurses' Choral Society.

The Society holds two concerts a year, in December and in the Spring. Its members are composed entirely of students and nurses under Mr. Clive Carey's able leadership.

The rehearsals, which will commence in October, are held every Friday at 5.0 and 8.0 p.m.; notices will be posted up on the screens in the colonnade, dissecting room, and club.

The Society depends entirely upon the success of its concerts, and a small list of donors for its financial maintenance: there is no membership fee.

The Society does *not* expect to find musical genius—there are many members of the Hospital who selfishly "hide their light under a bushel," perhaps modestly imagining that the Society's efforts are out of their reach.

Anyone with any musical talent whatsoever—either vocal or instrumental—will be only too welcome, and the Secretaries only too pleased to give them any further information required.—We remain, yours respectfully,

H. Q. F. THOMPSON,
T. W. SHELDON,
Hon. Secs.

The University of London Officers' Training Corps.

It is useless to shut our eyes to the fact that the safety of the country and of the Empire depends upon our preparedness for war. No one can doubt, after the experiences of last summer, that there is a danger of war, or that war may break out with little or no warning.

Our regular army may or may not be sufficient to adopt the offensive, and it may seem unlikely that it will ever be necessary to defend ourselves against an invader, but it must not be forgotten that, should the necessity arise, it will be almost entirely upon the Territorial Force and the Special Reserve that the safety of the country will depend.

It is clearly the duty of every man to do all in his power to train himself to be of assistance in the hour of peril. Such a training is offered in the medical unit of the University of London O.T.C. A cadet signs on in the first place for a period of two years, after the completion of which he may be re-enrolled annually. He incurs no pecuniary liability, except in the event of his not becoming efficient; but as drills are held frequently throughout the winter and summer sessions there is no difficulty in his attending the required number.

For those who are entering the Army or Navy Medical Services special advantages are offered to holders of Certificates A and B in the shape of additional marks in the entrance examinations. Concessions are also made to certificate holders on entering the Special Reserve or the Territorial Forces. Names of those who wish to join the corps should be sent to Capt. R. Davies-Colley, 24, St. Thomas's Street, before the end of October.

OFFICERS' TRAINING CORPS CAMP, 1912.

The Fourth Annual Camp was held this year at Shorncliffe. Unlike last year, all units of the London University O.T.C. were encamped together, with the exception of the artillery unit, which was to have joined us, but was unable to obtain the use of the Lydd ranges at the required time. The position near Folkestone and the sea was greatly appreciated after the somewhat desolate situation at Bordon last year. In a time of wind and rain, when most camps have been in a state of flood, we were extremely lucky to have comparatively good weather. Although we had some very bad storms and one or two really wet days towards the end of camp, at no time was there any real discomfort or upsetting of plans.

The camp was very well situated in a large field quite close to the barracks occupied by the Seaforth Highlanders, and was of large dimensions. The sea was within easy reach, and the excellent bathing was much enjoyed. The main body travelled down on Saturday, July 20th, and soon settled down.

The following is a short account of the way in which the time was spent by the medical part of the contingent. The training of each branch is, of course, so different that very little combined training was done, the only occasion on which the units joined forces being on the two days' trek at the end of camp. Reveillé sounded each morning at 5.15 ; first parade was at 6.15; breakfast, 7.30; kit inspection, 8.45; second parade, 9.30; dinner, 7.30; and lights-out, 10.15. The first few days were spent as usual in very necessary squad, company, and ambulance drill, varied by one or two lectures and demonstrations. On one of these days we were given instruction and practice in the rudiments of field cooking. The sections were divided into squads of four men, and each squad constructed a miniature field kitchen, and with the aid of mess tins very quickly cooked a "stew" from dripping, flour, meat, onions, and bread. Judging from its appetising smell and rapid disappearance the "stew" was most successful.

By the following Wednesday all those cadets who were only able to come down for one week had joined, and on the Thursday we had a practice march of 12 miles as a section of a field ambulance. The result was quite satisfactory, with the exception of a very few sore feet and some slight difficulties with the transport in the steep and narrow lanes. On the next day, which was the hottest of the whole camp, we set out at 9 o'clock for a whole day's march on the same plan with the idea that fighting was taking place near Barham, some 10 miles away on the road to Canterbury. This time 22 miles were covered, and most of us were glad to get back to camp once more. Saturday morning was spent in instruction in digging field kitchens, incinerators, etc., and in the afternoon the contingent sports took place in which the medicals gave a very good account of themselves. Monday was spent in a field-day some mile or two from camp, one section having charge of the tent division camp and the others acting as regimental stretcher-bearers and bearers from the field ambulance. The Tuesday was more or less a repetition of the day before, but the corps was inspected while actually in the field by the Medical Director-General.

In the evening a night march took place from 9 o'clock till midnight, with the object of training the men in the collection of wounded at night. The next day was very wet, but the morning was spent in a practical demonstration by Colonel James, who supervised all the field work, and the fitting up of a railway wagon for the carriage of wounded in stretchers. In the afternoon the practical examinations in company and stretcher drill for Certificate A took place, and also the inter-section stretcher competition for the cup presented by Major Herringham. This was won by B section (Guy's and St. Thomas's), largely owing to the excellent coaching of Cadet Staff-Sergeant Mitchener. It is to be hoped that men will show the same keenness next year so that B section may retain the cup. Next day, Thursday, engineers, infantry, and medicals, with full transport, all marched out for a two days' trek, leaving a small party behind to strike camp and return stores. Luckily the weather had cleared up, and we had two very fine days. We marched out early and covered some 9 or 10 miles before an early halt for lunch. An engagement took place after this, but it came to an end rather quickly, and we all reached our bivouac in Olantigh Park, Wye, some 6 miles further on, rather earlier than was expected. An early start was made next morning on our return march, and we reached Shorncliffe at 1 o'clock to finish the striking of camp and entrain very early next morning for London. An innovation this year was the cooking by some of our own men, and they are to be heartily congratulated on the excellent results they achieved. Unfortunately, Lieutenant Layton, owing to his studies in Vienna, and Lieutenant Corbett were both unable to attend camp. They were universally missed, and it is very much to be hoped that they will be able to be present next year.

On a Students' "Squib" of 1823.

A MOST happy discovery has recently brought to light the "spoof" auction bill printed below. There is a special significance in the date of its publication—within a year or so of the final rupture between the "United Hospitals."

Our readers will scarcely need to be reminded that St. Thomas's Hospital is our senior by several centuries; that our founder, Thomas Guy, was also a governor of that institution; and that in the earlier years of our foundation the hospitals worked in harmony together. The first sign of friction showed itself in 1760 when a quarrel arose between the two hospitals with regard to the reciprocal attendance of students at operations, with the result that all intercommunication ceased. Eight years later it was resolved by the Governors of Guy's "that the barriers between this hospital and St. Thomas's be taken down, and that the pupils of St. Thomas's have free leave to see not only the operations, but also the other practice of this Hospital." St. Thomas's reciprocated these advantages, and thenceforward the two institutions were known as "The United Hospitals" and "The Borough Hospitals." As professional instruction became systematised, anatomy and surgery were taught at Thomas's, chemistry and medicine at Guy's.

These harmonious relations were not destined to continue permanently. In the early twenties of the last century quarrels again developed, until, in 1825, Mr. Benjamin Harrison, the Treasurer of Guy's, determined to start an independent medical school at his own hospital. The friction was focussed about

the personality of Astley Paston Cooper, the famous surgeon. He had been introduced to Guy's under the aegis of his uncle, William Cooper, surgeon to the hospital from 1783 to 1800, and in the latter year Astley himself was appointed to succeed his uncle as full surgeon. When, as years went by, Astley Cooper began to press the claims of his two nephews, Charles Aston Key and Bransby Cooper, to succeed him, much ill-feeling was created among the supporters of disappointed competitors, as the "squib" under consideration plainly shows:—

TO MEDICAL

STUDENTS

AND OTHERS.

By Auction.

Mr. Nicholas Knock'emdown respectfully informs the Public: that on the 29th of the present Month, he will have the honour of submitting for Sale, the following

Valuable Publications, and Rare and Curious Articles.

Lot 1. All the Transactions, worth preserving, of the Physical Society, at Guy's; interspersed with numerous anecdotes of its most illustrious Orators. 24mo., richly bound in *Calf*.

2. A Treatise on Sanguineous Transfusion, by Dr. Bundle, with Notes by King Cole; in which the Annotator suggests the occasional performance of the Æro-sanguineous Injection as a substitute for the Action of the Lungs.

3. A Magnificent Extinguisher, originally intended to smother the Establishment of a celebrated Ranger from Old Schools: but which (being found totally inadequate to such design) will be put up at a very low sum.

N.B.—*This was originally constructed in Tom's Demonstrating Theatre: the Key of that place has since been removed: two skeleton Keys have, however, been produced, and it is expected that one of them will be sufficient to open it.*

4. The Title Page of a course of Clinical Lectures: as annually given to the Surgical Pupils at the Un. Hosp. In Royal Quarto *interleaved:* original price 25 guineas.

5. Tracts containing—Directions for performing the various manipulations of Surgery: in which is clearly shewn, that good Bandaging and no Bandaging are synonymous terms.—A description of a new mechanical contrivance, by which any Pupil may witness the examination of cases, although 20 others intervene—with other matter equally novel and useful. By Messrs. the Dressers of the Un. Hosp.

6. The Leg of a distinguished Lecturer: left, by mistake, on the table of the Theatre at——

N.B.—*Mr. K. cannot pledge himself to produce this Lot, as from the known high esteem in which its natural owner is held, he thinks it probable, the Class will not suffer it to come to the hammer.*

7. A Dissertation on the means to be used in entering to the different Lectures, with Cases, proving in the most satisfactory manner, that the benefit derived from such entry is in the direct ratio of the sum expended, and inversely, as the knowledge obtained. By Standard Pestle, Esq., of Guy's.

8. A Thesis on Christian Conversation, and on the moral and constitutional effects of the practice of Profane Swearing. By the Abbot of St. Bartholomew.

9. An Account of the Public Post Mortem Examinations of the Un. Hosp. for the last seven years: printed in large type on a half-sheet of letter paper. By an Eye Witness.

10. Some remarks on Public Discourses: with a Definition of a new Rhetorical Figure, called the Hæsitato-Aspirat; and rules for its employment. By Joseph Viridis, Esq.

As an encouragement to spirited Bidding, Mr. Knock'emdown offers the following NON-ENTITIES *in the way of a* BONUS, *to be divided by lot amongst all who purchase to the amount of 3d. or upwards.*

1st. The Suavity of Sir Wayward Hum.

2nd. The Visus and Tactus Eruditus of Messrs. the Dressers of the Un. Hosp.

3rd. The Anatomical and Chemical Acquirements of Messrs. the Ex—— of H—— *Mum.*

4th. The Venous Congestion of Dr. A.——

Southwark, February, 1823.

Lot 1. The Physical Society, at Guy's, was founded as early as 1771. In spite of the minute size of the volume it could scarcely fail to include the paper on "Cow-Pox" read before the Society by Jenner in 1802. Four years previously Cline of Thomas's had inoculated a child patient with vaccine supplied by Jenner.

Lot 2. Dr. William Blundell qualified at Edinburgh in 1813, and in the year following joined his uncle Dr. Haighton in delivering lectures on Midwifery and Physiology at Guy's, and succeeded him as lecturer on those subjects to the United Hospitals.

His best-known work in physiology was concerned with Transfusion of Blood, which he illustrated by experiments upon animals, to the disturbance of the anti-vivisectionists of the day. In 1818 he commenced to utilize his experience by a series of similar operations upon human subjects, wherein his partial success (he lost five of the nine patients) may have elicited a word of caution from Harrison, the despotic Treasurer. "King" Harrison, as he was universally called, behind his back, ruled Guy's from 1797 to 1848, and with a rod of iron. "With one hand he smote Grainger, with the other he de-

molished St. Thomas's. By Jove, 'twas grandly done ! "

Blundell afterwards devoted himself to Midwifery. One of his sayings is commemorated in the "grant of arms" in the Charities' Room. "I don't like to see an elegant pair of forceps: let the instrument look like what it is, a formidable weapon ; *arte non vi* may be carefully engraved on one blade, and *cave perineo* on the other."

Lot 3. In 1816 (Dic. Nat. Biog.) Edward Grainger, "the celebrated Ranger," became a pupil of the school of the Borough Hospitals. He did not bind himself apprentice to any of the surgeons, thereby escaping the payment of the heavy fee which was necessary to that operation, but which, by custom, generally entitled the apprentice to some future appointment. Consequently, when he applied for the appointment of demonstrator of Anatomy, to be held jointly with Aston Key, his application was rejected.

At this, Grainger left the Hospitals, and in 1819 started a school of Anatomy of his own in a tailor's shop in St. Saviour's Churchyard, and was soon enabled to move to larger premises in Webb Street, Maze Pond. He was joined, in 1820, by Dr. Armstrong and Dr. Richard Phillips who lectured on Medicine and Chemistry. Grainger died in 1824, and was succeeded by his brother Richard who carried on the school until 1842, when St. Thomas's induced him to join their staff.

Now for the "Extinguisher" that failed. In the same year that Grainger left the Old Schools, Aston Key, who in the previous year had married Astley's niece, Bransby's sister, set up, in addition to his regular work at Tom's (St. Thomas's), a private dissecting room in Maze Pond, in partnership with John Morgan. Private courses of instruction conducted by members of hospital staffs were by no means uncommon at this period; materia medica and chemistry were taught in Crosby Row, all subjects in Dean Street, and Dr. Whiting gave lectures at the Surrey Dispensary. Key's venture, however, was abandoned at the end of a couple of years. In 1821 the post of Assistant Surgeon at Guy's was specially created for him, though ostensibly for the better attendance of surgical out-patients. Five years later he was appointed full surgeon. His colleague Morgan was similarly promoted.

Lot 4 seems to refer to Astley Cooper's lectures on Surgery. The fees for the subsequent Surgical Course at Guy's were by no means so heavy. The admission card to the "Surgical Operations and Practice of Guy's Hospital" expressly states that "Six Months' Pupils may have the Privilege of becoming 12 Months' Pupils by paying Six Guineas within Two Months after their first Entry."

Lot 5 requires no comment. Probably some of Messrs. the Dressers to-day would be very thankful if the details of the *new mechanical contrivance* were still extant.

Lot 6. Sir Astley would, not infrequently, "throw his well-shaped leg upon the table to illustrate some injury to or operation on the lower extremity."

Lot 7. The surname of Standard Pestle, Esq., of Guy's, almost certainly indicates Richard Stocker, the Apothecary. The duties of this official brought him into daily contact with the students whose admission cards were signed by both Steward and Apothecary.

Lot 8 seems to be a "make-weight" put in to tickle the students of the principal competitor of the Borough Hospitals at that period. We must leave it to our friends at Bart.'s to identify Mr. Abbot.

Lot 9 is another dig at Aston Key. The "united pupils" were allowed to see the dissection of all the morbid bodies. The records of post-mortem inspections at Guy's have been kept with considerable regularity from the beginning of the century, and the earliest are preserved at the Museum in a volume called the "Red Inspection Book," containing "Reports of Curious and Interesting Medical and Surgical Cases commenced at Guy's Hospital, 1814."

The inspections were made by Mr. T. Callaway, and numbered 37 in that year. In 1817 there are reports of only 10 cases. There are also records of Inspections made by Mr. Key dating from 1821 to 1825.

Lot 10. Biographers are too polite to tell us whether Mr. Joseph Henry Green (1791—1863) was in the habit of dropping his h's. Dr. Ashwell, Blundell's successor on the Guy's Staff, had this peculiarity, the mention of which caused the celebrated "Teddy" Cock to exclaim, "It is no matter; 'Ashwell' would sound 'As well' without the h ! "

Green succeeded his cousin Henry Cline as surgeon to St. Thomas's in 1820. He paid Astley Cooper £1,000 for a half share of the joint lectureships on Anatomy and Surgery. At his resignation Cooper wished to resign his own share to Key and Bransby Cooper, but although Green offered no opposition, the hospital authorities of St. Thomas's refused to sanction this, and put in Mr. South. Key and Bransby thereupon proposed to give lectures on Anatomy at Guy's, and demanded that St. Thomas's should hand over half of Sir Astley's Museum, which was refused. Green's contribution to the controversy that ensued was a "Letter to Sir Astley Cooper on the Establishment of an Anatomical and Surgical School at Guy's Hospital."

With regard to Bonus No. 1, the reference must be to Sir Astley, whose title, granted in 1821, was still something of a novelty to Mr. Knock'emdown's clients. The baronetcy was the reward of an operation upon King George the Fourth for the removal of a "steatome" from the royal scalp, His Majesty facetiously remarking, afterwards, that he hoped it would *stay at home* and not annoy him any more !

No. 2 alludes to a couple of qualities much cultivated at the period. Wilks remarks on Mr. Key possessing the *tactus eruditus* in an extraordinary degree.

Both 3 and 4 are obscure. Dr. A—, if he belonged to Guy's, may be Addison, who joined in 1820, and was appointed Assistant Physician in 1824.

R. M. W.

The Treatment of Inguinal Hernia in Children.

CLINICAL LECTURE BY MR. PHILIP TURNER.

I HAVE chosen for the subject of to-day's lecture one of the most common surgical diseases of children, and one which, when one considers the disadvantage at which a boy with a hernia is placed at the present day in seeking employment, is of very great importance. Let me say at once that by the term "children" I do not mean infants only, but include herniæ in patients of any age before the abdominal muscles have reached their full development. It will be seen that the limit in the upward direction is somewhat vague, but we may, for the present purpose, select the age of 18 years. The presence of the hernia always depends upon a congenital cause—the persistence of the processus vaginalis. There is no congenital deficiency or weakness of the abdominal wall, though this may appear later on as the result of the continued presence of the hernia. The essential point about a hernia in a child is thus the presence of the sac, derived from the processus vaginalis. This peritoneal diverticulum is frequently patent at birth, even though its existence is not made manifest by the descent of any of the abdominal contents. There is, however, a tendency to spontaneous closure during the first few months of life, provided that the sac is not continually or intermittently distended by the protrusion of intestine or omentum. How long this tendency to spontaneous closure persists is not known, but the general opinion is that at the end of a year, at any rate, there is no likelihood of spontaneous cure. After this age, then, the treatment of hernia is essentially operative. Though the sac then is congenital its presence may not be made obvious by the descent of abdominal viscera for some months or even years after birth. Indeed, Hamilton Russel has put forward the theory that there is no such thing as an acquired hernial sac, that all herniæ which make their appearance for the first time in adult life are in reality caused by some strain, gradual or sudden, forcing an abdominal viscera into a congenital sac which has been present, though empty, since birth.

There are certainly many facts which favour this view. Thus, Murray, of Liverpool (*Lancet*, 1907, vol. i., page 228), examined the hernial orifices at 200 post-mortems on adults who were not the subjects of hernia. In these, no fewer than 65 diverticula were found, 52 inguinal, and 13 femoral. Without entering into any controversy, there can be no doubt, at any rate in a large proportion of herniæ in adults, that the sac is congenital. This is an additional argument in favour of early operation, for if, in a child, treatment by supports or trusses succeeds in keeping the sac empty and thus allowing the neck to contract, the sac itself will persist ready to again become distended after some strain, possibly years afterwards in adult life.

Though there is no congenital weakness of the muscles of the abdominal wall, such weakness will eventually develop in the structures which bound the inguinal canal as the result of the presence of the hernia. This is brought about by the long-continued slight pressure which interferes with the normal development of the muscles and aponeuroses, and in adults will lead to a certain amount of atrophy of these structures.

The treatment will depend upon the age of the child and the character of the hernia. In an infant a few months old, if the hernia is small, easily reducible, and appears only at intervals, it may be treated with a wool truss*. If properly applied, carefully watched, and re-adjusted when necessary, this support may prevent the descent of the bowel and allow of the spontaneous closure of the processus vaginalis. Should, however, the hernia be of large size, uncontrollable by the truss, be irreducible, or

* It is usual at the same time to recommend circumcision. Though this is advisable on other grounds, I do not think that relief of the phimosis has any effect in curing the hernia.

become strangulated, operation is indicated even in infants a few months or weeks old.

After the first twelve months of life there is no tendency for spontaneous obliteration of the processus vaginalis. Hence, after this age a radical cure should be recommended unless contra-indicated by the condition of the child.

One not infrequently sees children of about this age, or slightly older, brought to Out-Patients wearing some form of hard truss, usually made of india-rubber. Of course, the soft wool truss is only of use during the first few months of life; about the end of the first year the small support derived from this is insufficient to prevent the descent of the hernia. I never like to see children wearing these hard trusses for the following reasons:—(1) The truss will not cure the hernia, at the most it will prevent the descent of the contents into the sac. (2) The truss may actually produce weakness of the abdominal wall, and thus do harm. This is the result of the long-continued slight pressure of the truss on the developing abdominal muscles, preventing their development, or even causing atrophy. If one examines a child, or even an adult, who has worn a truss for a long time one often finds a distinct soft patch due to muscular atrophy in the region pressed upon by the pad. (3) The skin under and around the truss is likely to become eczematous. (4) The child grows rapidly, and hence a truss which when fitted may be satisfactory, may be quite ineffectual after a few months.

Operation.—We have seen that the presence of the sac is the essential cause of the hernia in children. There is no congenital weakness of the inguinal canal, and in children no secondary weakness will have developed. The great principle of the operation will thus be *the complete removal of the sac.* To this I would add another, viz., *that the removal should be accomplished with the least possible damage to normal structures both of the inguinal canal and of the spermatic cord.* I have already pointed out two causes of acquired weakness in this region, viz., the long-continued presence of a hernia and the pressure of a truss. To these a third, trauma during the operation, may be added. It is generally recognised that deep stitches behind the spermatic cord between the conjoined tendon and Poupart's ligament are not only unnecessary, but may be actually harmful in children. In the same way the external abdominal ring, a structure which if once severed can never, by the most careful suturing, be reconstructed so as to be as strong as in its original condition, should not be divided.

Two operations are in common use for the radical cure of inguinal hernia in children. In the first the spermatic cord and sac are exposed just below the external abdominal ring. The sac is then isolated and drawn down as much as possible. It is then transfixed, ligatured, and cut away. In the second method the external abdominal ring is exposed together with the adjacent part of the aponeurosis of the external oblique. The inguinal canal is next opened up by dividing the ring and the aponeurosis. The sac is now separated from the cord as far as the internal ring, and is then transfixed, ligatured, and removed; the external oblique is sutured and the external ring repaired.

In the first of these operations one is rather doubtful as to the complete removal of the sac. It is, however, recommended by many surgeons, and was advocated by Mr. Kellock in a paper read before the surgical section of the Royal Society of Medicine last year. Personally, though I have but little experience of it, I think it is probably a satisfactory operation in infants, though I do not consider that it would be suitable for older children. Other disadvantages are that the incision has to be low down over the external ring, and also that the sac has to be separated from the cord below the external ring, a place at which its separation is often difficult owing to adhesion to the vas and other structures of the cord. In the second operation, though the separation of the sac is usually easy owing to the full exposure, and ligature of the highest point of the neck may be ensured, yet the damage to the inguinal canal is excessive and unnecessary.

For some time past I have performed the following operation* which ensures as complete removal of the sac as is possible in the second of the above operations, with even less damage to the structures of the cord and the inguinal canal than in the first. I shall describe the operation in a child about 4 or 5 years old, though with variations in the size of the incision it is the same for the ages mentioned at the beginning of the lecture.

An incision about two inches in length is made commencing just above and to the outer side of the spine of the pubis, running outwards and upwards just above and parallel to Poupart's ligament. The aponeurosis of the external oblique is exposed for the whole length of this incision and, though the external abdominal ring is not seen, its position may be identified by the finger just below the inner extremity of the wound. A small incision from a half to three-quarters of an inch in length is then made in the aponeurosis in the direction of its fibres just above and slightly to the inner side of the middle of Poupart's ligament. The muscular fibres of the internal oblique are thus exposed. The latter muscle is now separated from the external oblique by a blunt dissector introduced downwards and inwards through the small cut in the aponeurosis. A small hook-shaped retractor (a pattern made by Messrs. Down Bros. is most convenient for this purpose) is inserted between the oblique muscles, and the lower border of the internal oblique is drawn upwards and outwards. The spermatic cord, covered by the cremaster, can now be seen just below the internal ring. With two pairs of dissecting forceps the cremaster and also the infundibuliform fascia are torn through longitudinally, and the cord and sac are then drawn through the incision in the external oblique, and kept in this position by a blunt dissector pushed beneath them. The structures of the cord are now spread out as much as possible, either over the dissector or upon one's finger. The edge of the sac then comes into view, and is secured by a pair of clip forceps. It is now easy, with the help of dissecting forceps or a blunt dissector, to isolate the sac from the structures of the cord at this level. The separated portion of the sac is now firmly grasped by forceps or the finger, and a few touches with a dissector aided by wiping movements with a swab will easily bring about its separation from the vas deferens, veins, and other structures of the cord, without any injury to the latter, as high up as the internal ring. The lower part of the sac is now pulled upon, and by repeating the same manœuvres it will be found that the distal part of the sac can be shelled out quite easily from this part of the cord, even though it extends as low down as the tunica vaginalis. Indeed, when the sac is continuous with the latter structure no difficulty is experienced, for, in a child, if the lower part of the sac and cord be pulled upon, the testicle can be drawn up to the external ring and made to present in the lower angle of the wound. The totally separated sac is now pulled upon until the extra-peritoneal tissue is seen. It is then transfixed, ligatured, and removed. The stump can, if desired, be fixed by subsequently passing the thread of the ligature through the internal oblique just above the internal ring. The spermatic cord is pushed down into its proper position in the inguinal canal, the internal oblique falls back into place, and the operation is completed by suturing with fine catgut the small opening in the external oblique aponeurosis. You will observe that in this operation the actual walls of the inguinal canal are not divided at all, for the small incision in the external oblique is above the level of the canal, which is not exposed until the internal oblique is drawn upwards. In addition to fulfilling the requirements mentioned above, viz., complete removal of the sac with the minimum amount of injury to normal structures, this operation has the following advantages :—(1) The sac is isolated at the place where separation is easiest, viz., just below the internal ring. (2) The skin incision is nearly an inch further from the groin than in other operations, a point of considerable importance in avoiding subsequent infection of the wound.

It might be thought that removal of the sac through such a small opening was a difficult matter, but though any operation for hernia in children may present great difficulties owing to its thinness and intimate connection with the vas and other structures in the spermatic cord, I have no hesitation in saying that this method is, in the majority of cases, easier and simpler than the other procedures. The entire operation only takes a few minutes.

* I read a paper on this operation before the Society for the Study of Disease in Children in January of this year. Since then Mr. Chiene has informed me that for some years past he has treated hernia in children by ligature of the sac just below the internal abdominal ring through a similar incision.

The child is allowed to get about as soon as the wound is firmly healed. No truss or support is required after the operation.

The results of operations for hernia in children are exceedingly satisfactory; a recurrence is very unusual. I cannot imagine that the results by this method will be less satisfactory than those obtained by other operations, though I have not employed it long enough to collect statistics as to results.

Appointments.

Medical School Appointments.

OCTOBER—DECEMBER, 1912.

The following appointments have been made by the Treasurer upon the recommendations of the Medical Council :—

Clinical Assistants in Clinical Wards.—Messrs. T. P. Cole, J. M. Joly, R. S. Kennedy, G. S. Miller, C. Warner, S. Wickenden.

Clinical Assistants in Medical Wards.—Messrs. N. Garrard (Dr. Hale White); H. C. Godding (Dr. Pitt); D. V. Pickering (Sir Cooper Perry); J. W. Kemp (Dr. Shaw).

Clinical Assistants in Surgical Wards.—Messrs. H. C. Rook (Mr. Dunn); F. Collar (Mr. Steward).

Clinical Assistants in Medical Out-Patients.—Mr. L. D. Wright (Drs. Fawcett and French).

Dressers in the Throat and Ear, Genito-Urinary, and Children's Departments.—Messrs. C. Lambrinudi, F. H. Dodd, P. Savage, A. H. Taymour, F. V. Bevan-Brown, O. G. Morgan, R. Creasy, G. E. Genge-Andrews.

Dressers in the Throat and Ear, Skin, and Orthopædic Departments.—Messrs. J. F. Venables, J. York Moore, R. O. H. Jones, C. G. McClymont, P. R. Chevreau, W. C. D. Maile, S. Keith, C. H. G. Pochin.

Dressers in the Ophthalmic and Nervous Diseases Departments.—Messrs. C. S. L. Roberts, P. L. duVergé, W. K. McKay, C. F. Pedley (Mr. Eason); A. B. Danby, W. R. Pryn, W. C. Whitworth, H. S. Groves (Mr. Ormond).

Obstetric Dressers and Externs.—Messrs. F. D. Annesley, E. M. Mahon, R. H. Lucas, W. L. Gwyn-Davies, A. V. Moberly, J. R. Barrow-Clough, H. W. Evans, H. Gould, E. D. Scott, C. H. L. Harper, E. S. Taylor, P. H. Berry, A. C. Clifford, J. A. Martin, C. Sherris, J. L. Perceval, H. Mather, A. K. Selim, A. M. Zamora, W. R. Reynell, F. A. Hampton.

Surgeons' Dressers.—Messrs. A. Wills, W. E. Tanner, E. C. W. Starling, C. Dean (Mr. Lane); A. N. Minns, P. R. Boswell, H. H. Elliot, D. R. Jones (Mr. Dunn); S. Wilson, A. Abd-el-Al, T. W. Sheldon, R. J. Hearn, (Sir A. Fripp); F. C. S. Broome, L. Muir-Smith, H. P. Whitworth, D. C. Scott (Mr. Steward).

Extension Medical Ward Clerks and Post-mortem Clerks.— Messrs. F. G. L. Scott, T. R. Trounce, E. R. Bailey, N. H. W. Saw (Dr. Hale White); F. E. R. Laborda, C. de W. Gibb, H. L. Peregrine (Dr. Pitt); H. L. Messenger, G. B. Pritchard, D. M. McManus, G. L. Attwater (Sir Cooper Perry); R. B. Campion, C. R. Smith, H. G. Dresing (Dr. Shaw). Extra Post-Mortem Clerks: Messrs. H. Mather, A. C. Hancock, C. H. G. Penny, A. J. E. Smith, R. C. Matson, W. D. Galloway, J. E. Davies, C. E. Petley, A. H. Harkness, J. S. Cocks, J. Stephenson, R. W. Cushing, A. S. Liebson, L. R. Pickett, L. Horsley, W. H. Nicholls, D. O. Richards, A. L. Anthony, J. H. Parry, B. Burnside, R. Quesada.

Assistant Surgeons' Dressers.—Messrs. O. G. Parry-Jones, W. M. Lansdale, (Mr. Fagge); R. Sells, L. A. J. Graham (Mr. Rowlands); S. S. B. Harrison (Mr. Turner); H. Parry-Price (Mr. Hughes); P. D. Scott (Mr. Davies-Colley).

Surgical Ward Clerks.—Messrs. H. Q. F. Thompson, J. F. Mackenzie.

Student Demonstrators of Anatomy.—Messrs. J. Victory, K. N. Purkis.

Student Demonstrator of Biology.—Mr. R. G. Mayer.

Student Demonstrators of Microscopical Pathology.—Messrs. C. S. L. Roberts, F. Collar.

Naval and Military.

Fleet-Surgeon J. C. G. Reed to the *Natal*, on recommissioning.

Staff-Surgeon G. E. Duncan to the *Pyramus*.

Major W. G. Beyts, R.A.M.C., Commanding Station Hospital, Roorkee, in United Provinces of Agra and Oudh, has been appointed to hold Civil Medical Charge of Roorkee, in addition to his Military duties.

Major S. H. Burnett, M.B., C.M. Aberd., I.M.S., to be Presidency Surgeon, Second District and Marine Surgeon, and Superintendent, Lunatic Asylum, Colaba.

Captain P. K. Tarrapore, I.M.S., to be Superintendent sub. *pro tem*, Mandalay Central Jail.

Captain D. P. Watson, from R.A.M. College, has joined Queen Alexandra's Military Hospital for duty.

Civil.

A. T. Falwasser, M.R.C.S., L.R.C.P., to be Medical Officer, No. 1 District, and Public Vaccinator, Nos. 1 and 2 Districts, Maidstone Union.

Gazette Special Pathologist.

W. E. S. C., BALHAM.—This growth is a carcinoma composed of branching epithelial alveoli in a dense fibrous stroma. It approaches very close to the skin, and is infiltrating all adjacent structures.

PATHOLOGIST.

Nursing News.

Matron's Office.

On June 5th, Nurse Clarke left the Hospital on completion of her three years' training to take up her duties on the Private Nurses' Staff, and Nurse Trice succeeded her as Head Nurse in Lydia ward.

On June 5th, Nurse Prince was appointed Staff Nurse in the Massage Department, and Probationer Probert succeeded her as Head Nurse in Astley Cooper ward.

On June 7th, Nurse N. Foster left the Hospital on completion of her three years' training, and Probationer Skou succeeded her as Head Nurse in Charity ward.

On June 7th, Nurse Mannell left the Hospital on completion of her three years' training to take up the appointment of Sister at the Royal South Hants Hospital, Southampton, and Probationer Sutherland succeeded her as Head Nurse in Esther ward.

On June 10th, Probationer C. Middleton was appointed Head Nurse in Martha ward.

On June 10th, Nurse Grant left the Hospital on completion of her three years' training. Nurse Selby was transferred from the Surgery to Mary ward, and Probationer Douglas was appointed Head Nurse in the Surgery.

On June 24th, Nurse Waterman left the Hospital on completion of her three years' training, and Probationer Bagnall succeeded her as Head Nurse in Stephen ward.

On June 28th, Nurse Oldershaw left the Hospital on completion of her three years' training, and Probationer Bollard succeeded her as Head Nurse in Martha ward.

On June 29th, Probationer Freshney was appointed Head Nurse in John ward.

On July 12th, Nurse Mutford left the Hospital on completion of her three years' training, and Probationer W. Pearson succeeded her as Head Nurse in Addison ward.

On July 28th, Nurse Lear left the Hospital on completion of her three years' training, and Nurse Lewin succeeded her as Head Nurse in Addison ward.

On July 29th, Nurse C. A. Ward left the Hospital on completion of her three years' training, and Probationer Dickin succeeded her as Head Nurse in the Out-Patient Department.

On July 30th, Nurse Naylor left the Hospital on completion of her three years' training to take up her duties on the Private Nurses' Staff; Nurse Sterling was transferred to Lydia ward, and Probationer Oliver was appointed Head Nurse in Lazarus ward.

On July 31st, Probationer Stretton was appointed Head Nurse in the Isolation wards.

On August 16th, Nurse Achurch left the Hospital on completion of her three years' training, and Probationer Wittrick succeeded her as Head Nurse in Queen ward.

On August 18th, Nurse Quin left the Hospital on completion of her three years' training, and Nurse O'Rorke succeeded her as Head Nurse in Stephen ward.

On August 20th, Probationer Willett was appointed Head Nurse in Patience and Samaritan wards.

Miss Nora Kingzett, Home Sister, left the Hospital on August 30th. Miss Kate Webb, who has been Sister at the Mayo Hospital, Lahore, for the last three years, has taken up her duties as Sister in charge of the Nurses' Home.

The Christian Union.

President: Charters J. Symonds, Esq., M.S., F.R.C.S. Vice-President: J. Lewin Payne, Esq., M.R.C.S., L.R.C.P., L.D.S. Student President: J. A. Martin. Committee: H. H. Elliot, A. C. Clifford, T. L. Heath. Hon. Secretary and Treasurer: O. St. L. Campion.

The Christian Union was organised in 1848 by Drs. Habershon and Golding-Bird, who held meetings in their houses for students of Guy's and St. Thomas's Hospitals. This was the first Union formed in the London hospitals, in each of which there is now such a society. It is part of the Student Christian Movement of Great Britain.

In connection with the above student movement, a conference, in the form of a summer camp, is held in July every year at Swanwick in Derbyshire. At this camp there is an attendance of about 1,500. During the winter term conferences are held in London. Freshmen's meetings are held every October; the meeting this year is to take place at the Mansion House, by kind invitation of Sir Thomas Crosby. The Bishop of London and Mr. R. P. Wilder are to speak.

During the winter term the Hospital Union holds monthly meetings. These usually take place on Thursday afternoon at 5 o'clock. Various speakers have kindly consented to address the meetings. Full particulars will be given in the programmes obtainable from the Secretary.

The opening meeting of the session of the Guy's Hospital Christian Union will be held on Tuesday, October 8th, at 8 p.m. Owing to the kindness of Mr. and Mrs. Charters Symonds, it will take the form of a social evening at their house, 58, Portland Place, W. All freshmen are especially invited. Mr. C. T. Studd, the well-known cricketer, and one of the "Cambridge seven," has kindly consented to speak. It is hoped that a large number of freshmen will accept the invitations, which are being sent out.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

A Handbook of Nursing. By Miss M. N. Oxford.

This volume, compiled by Miss M. N. Oxford—sometime Sister of Guy's Hospital, and well remembered by the Probationers of her day for her clear and instructive course of nursing lectures—is now re-issued after thorough revision. This has, of course, been necessitated by the constant changes in the Practice of Nursing. To mention one or two points—we notice that in the chapter on artificial feeding full directions are given respecting the following :—Rectal feeding, œsophageal feeds, nasal feeds and gastrostomy feeds. The attention of nurses is called also to the various methods of infusion into the tissues and the use of continuous rectal salines.

It will be sufficient to mention as a guarantee of excellence that Mr. Philip Turner, M.S., and Dr. H. C. Cameron, respectively, revised the surgical and medical chapters of this book.

Dr. Frank Bartholomews, of Kandy, Ceylon, has kindly allowed his notes of lectures on Tropical Diseases to be inserted.

The book should be a valuable source of information to all probationary nurses, and also to those who are hoping to go abroad at the termination of their training.

Post-Mortems and Morbid Anatomy, By Theodore Shennan, M.D., F.R.C.S. Edin. (Constable & Co., London.) 18s. net.

This book supplies a want which has long been felt by medical men. The importance of having a thorough knowledge of morbid anatomy cannot easily be overestimated, but it is unfortunately the case that many students fail to obtain an intimate acquaintance with the lessons to be learnt in the post-mortem room. In this work we find the subject treated in a manner eminently practical, and yet with a constant appreciation of the wider outlook of pathology as a whole. The post-mortem appearances of the various organs under different pathological conditions are described clearly, and with concise accuracy. Throughout the book, almost on every page, there are excellent photographic illustrations of unusual clarity, and many useful tables are given. Whilst the book can in no way supplant the necessity for diligent personal work in morbid anatomy, it undoubtedly furnishes a most valuable aid to the understanding and remembering of such labour, and we heartily commend it to all who are engaged in medical works.

For and Against Experiments on Animals. By Stephen Paget, F.R.C.S. Introduction by Lord Cromer. (H. K. Lewis, London.) 3s. 6d. net.

The subject of vivisection is a well worn one, and there can be few medical men who are not somewhat wearied of the controversy regarding it. Nevertheless, it is constantly necessary to educate the public on the question, and to counteract the inaccurate, and often unscrupulous statements of anti-vivisectionists. This hand-book was written for the Research Defence Society, and deals almost entirely with the evidence given for and against Vivisection at the recent Royal Commission on the subject. Lengthy extracts from the actual evidence, questions and answers, are ably worked together into a coherent whole, so that a study of the book affords a complete survey of ground covered by the commission. It is by no means a partisan production, all sides are fully represented in its pages, and it must certainly prove of considerable value to those who are in any way interested, theoretically or practically in the problems described.

Sahli's Tuberculin Treatment. By Dr. Hermann Sahli, translated by Wilfred Christopherson. (John Bale, Sons, & Danielsson, Ltd.) 7s. 6d. net.

At the present time, when the whole question of the treatment of tuberculosis is so much before the public eye, this addition to the English literature on tuberculin treatment is especially welcome. Sahli is well known for his careful and valuable work with tuberculin, and particularly for his advocacy of the method of small doses and the avoidance of reactions. It is, therefore, most helpful for English students of the subject to have at their hand this exposition of his views, both theoretical and practical. Sahli has specially devoted himself to work with "Tuberculin Beraneck," but in this book he, nevertheless, affords us a wide survey of the problems and practice of tuberculin treatment in all its manifold phases. Whatever may be the final judgment of the profession on the value of tuberculin, none can afford to ignore its possibilities and present-day importance, and we are, therefore, sure that this account of Sahli's work will be accorded a hearty welcome in this country.

Sport.

Football Fixtures.

Date. 1912.	RUGBY.—FIRST FIFTEEN.	
Oct. 5	Catford Bridge	Away
12	Rosslyn Park	Away
19	U. C. S. Old Boys	Home
23	Cambridge University	Home
26	Aldershot Comm.	Home
30	Oxford University	Away
Nov. 2	Streatham	Home
9	London Welsh	Home
16	London Irish	Home
20	United Services	Away
23	Harlequins	Home
30	Northampton	Away
Dec. 7	Richmond	Away
14	Bedford	Home
21	Old Millhillians	Home
28	United Services	Home

1913.			
Jan. 4	Rosslyn Park	...	Home
11	Newton Abbott	...	Away
18	Old Merchant Taylors		Home
25	London Scottish		Away
29	Oxford University		Home
Feb. 1	Catford Bridge		Home
8	London Welsh		Away
12	Cambridge University		Away
13	1st Round Cup Ties Middlesex Hospital		R'mond
15	Old Leysians		Home
22	Old Crocks		Home
Mar. 1	Old Blues		Away
6	Final Cup Tie		R'mond
29	Old Alleynians		Away

1912. SECOND FIFTEEN.

Oct. 5	Streatham "A"		Home
12	University College		Home
16	Tonbridge School		Away
19	Rosslyn Park "A"		Away
26	King's College		Away
Nov. 7	R. N. C., Osborne		Away
9	Maidstone...		Away
16	London Irish "A"		Away
23	Chartered Banks		Away
27	Royal Vet. College		Away
30	Richmond "A"		Home
Dec. 7	Eastbourne		Away
14	Old Merchant Taylors "A" ...		Away
1913.			
Jan. 4	Old Alleynians "A"		Away
11	Rosslyn Park "A"		Home
18	Aldershot Comm.		Away
25	London Scottish "A"		Away
Feb. 8	Eastbourne		Home
15	Old Blues "A"		Away
Mar. 1	Harlequins "A"		Home
8	London Welsh "A"		Home
15	Port of London Authority R. F. C. ...		Away

1912. THIRD FIFTEEN.

Oct. 19	Walton		Away
26	King's School, Wimbledon		Away
Nov. 2	Tonbridge School "A"		Away
6	Dulwich School "A"		Away
9	Old Elthanians		Away
16	Christ's Hospital		Away
23	King's College School		Away
30	St. Bart.'s Hospital III.		Away
Dec. 4	St. Bart.'s Hospital III.		Home
11	Berkshire Wanderers		Away
1913.			
Jan. 15	London Hospital III.		Home
25	Walton		Away
Feb. 5	Dulwich College "A"		Away
12	Tonbridge School "A"		Away
15	London Hospital III.		Away
22	Christ's Hospital		Away

1912. NOMADS.—FOURTH FIFTEEN.

Oct. 12	United Services College		Away
23	St. Dunstan's College		Away
26	U. C. S. Old Boys "A"		Away
30	Christ's College		Away
Nov. 2	Bedford Mod. School		Away
9	Molesey		Away
16	Whitgift School		Away
23	University College		Away
Dec. 4	Dulwich College "A"		Away
7	St. Dunstan's College		Away
1913.			
Jan. 4	Upper Clapton "B"		Away
Feb. 1	United Services College		Away
8	U. C. S. Old Boys "A"		Away
19	Emmanuel School...		Away
22	Dulwich College "A"		Away

1912. ASSOCIATION.—FIRST ELEVEN.

Oct. 5	Trial Game		Home
9	Emeriti		Home
13	Old Felstedians		Home
19	Lancing		Away
26	Beckenham		Home
Nov. 2	Casuals		Home
9	Wellingborough Masters		Away
16	Bank of England		Home
23	Eversleigh		Home
30	H. A. C.		Home
Dec. 4	Brighton College		Away
7	Old Cranleighans		Away
14	College Park		Away
21	Eastbourne		Away
1913.			
Jan. 11	Beckenham		Away
18	Carshalton		Home
22	Emeriti		Home
25	Eversleigh		Away
29	Casuals		Home
Feb. 1	Old Cholmelians		Away
8	H. A. C.		Away
15	Old Framlinghamians		Away
22	Old Cranleighans		Home

1912. SECOND ELEVEN.

Oct. 5	Trial Game		Home
12	Hampstead "A"		Away
19	British S. A. Co.		Home
Nov. 2	Darenth Asylum		Away
9	City of London School		Away
16	Clapham Ramblers		Away
23	Carshalton "A"		Away
30	Bank of England "A"		Away
Dec. 7	Clapham Ramblers		Home
14	Eversleigh "A"		Home
1913.			
Jan. 4	Horton Asylum		Away
11	Carshalton "A"		Home
18	Eversleigh "A"		Away
25	Old Cranleighans "A"		Home
Feb. 1	Bank of England "A"		Home
8	St. Bart.'s "A"		Away
25	British S. A. Co.		Away
22	Old Cranleighans "A"		Away

Birth.

THOMAS.—On September 19th, the wife of Frank L. Thomas, M.B., B.S., The Square, Barnstaple, of a son.

Marriage.

TALFOURD JONES—PERKINS.—On September 15th, at St. George's, Hanover Square, William Henry Talfourd, M.R.C.S. Eng., L.R.C.P. Lond., son of Dr. Rees T. Jones, of Harlesden, to Dora, younger daughter of Charles Guy Perkins, Esq., of Devizes, Wiltshire.

Lectures* for Sessions 1912—1913.

WINTER SESSION. OCTOBER—MARCH.

†	LECTURERS.		DAYS.						
Anatomy (1st & 2nd)	Mr. Fagge and Mr. Rowlands	9	—	Tu	W	Th	—	—	
Microscopical Pathology (3rd) ...	Dr. Boycott, Dr. Eyre & Dr. Johnson...	2.30	—	—	W	Th(10)	—	—	
Pathological Classes (3rd & 4th)	Dr. Fawcett and ...	—	—	W(11.30)	Th(9.15)	Sat(11)			
Bacteriology (Jan. to Mar.) (4th)	Dr. Eyre and Mr. Goodhart	4	—	Tu	—	—	—	—	
Practical Obstetrics (3rd & 4th)	Mr. Chapple (Oct. and Jan.)	11.30	—	—	—	Th	—	—	
Chemical Physiology (Jan.) (2nd)	Dr. Pembrey, Mr. Ryffel, Dr. Kennaway, and Mr. Poulton	11	—	—	—	—	Fri	Sat	
Chemistry (1st and pre. sci.) ...	Vacant	12.15	—	Tu	—	Th	—	—	
Practical Chemistry	Vacant, Mr. Merriman and Mr. Rogerson	10-12	—	Tu	—	Th	—	—	
Advanced Practical Physiology (3rd)	Dr. Pembrey, Mr. Ryffel, Dr. Kennaway, and Mr. Poulton	11	M	—	W	—	—	—	
Practical Medicine (3rd) ...	Mr. Hunt and Mr. Mutch	—							
Experimental Physics (pre. sci.)	Dr. Fison	12	M	Tu (3)	—	—	—	—	
Chemical Physics (1st)	Dr. Fison and Mr. Abram	2	M	Tu	—	—	—	—	
Practical Surgery (3rd)	Mr. Bromley and Mr. Gardiner ...	12.30	—	Tu	—	—	Fri	—	
Physiology (2nd)	Dr. Pembrey (Oct.-Dec.)	10	M	—	W	—	—	Sat	
Clinical Medicine (3rd & 4th) ...	The Physicians	1.30	—	—	W	—	—	—	
Surgery (3rd)	Mr. Lane, Mr. Dunn, Sir Alfred Fripp and Mr. Steward	9.30	M	—	—	—	Fri	—	
Clinical Surgery (3rd & 4th) ...	The Surgeons	1.30	—	—	W	—	—	—	
Elementary Biology (1st) ...	Mr. Assheton, Mr. Reed & Mr. Mullally	10.45	—	—	W	Th(2)	Fri	—	
Morbid Anatomy (3rd & 4th) ...	Dr. Fawcett, Dr. French & Dr. Cameron	2	M	Tu	W	Th	Fri	Sat(12)	
Medicine (3rd)	Dr. Hale White, Dr. Pitt, Sir C. Perry, and Dr. Shaw.	4	—	—	W (3)	—	Fri	—	
Ophthalmic Surgery (Jan.) (4th)	Mr. Eason	4	—	—	W	—	—	—	
Public Health (Jan.) (4th) ...	Dr. King Brown	4	M	—	—	—	Fri	—	
Anæsthetics	Mr. Rowell (Dec.)	—							
Dental Surgery and Pathology...	Mr. Wynne Rouw	4	—	—	—	Th	—	—	
Metallurgy	Vacant	4	M	—	—	—	—	—	
Practical Dental Metallurgy ...	Mr. Pearce (Jan.)...	2.30	—	Tu	—	—	—	—	
Dental Anatomy & Physiology...	Mr. Hopson	4.30	—	—	W	—	—	—	
Dental Mechanics	Mr. Lewin Payne (Oct.–Dec.)	4	—	Tu	—	—	—	—	
Practical Dental Mechanics ...	Mr. Pillin (Jan.)	2.30	—	—	—	—	Fri	—	
Pathology	Dr. Boycott	12.30	—	—	—	Th	Fri	—	

SUMMER SESSION. MAY—JULY.

†	LECTURERS.		DAYS.						
Medical Jurisprudence (3rd & 4th)	Mr. Ryffel	10	—	—	W	—	Fri	—	
Midwifery (3rd)	Mr. Targett and Mr. Bellingham Smith	9	—	Tu	W	Th	—	—	
Diseases of Women	Mr. Targett and Mr. Bellingham Smith	9	—	—	—	—	Fri	—	
Mental Diseases (3rd)	Dr. Craig	9.30	M	—	—	—	—	—	
Bacteriology (April to June) (4th)	Dr. Eyre and Mr. Goodhart	4	—	—	W	Th	—	—	
Practical Obstetrics (3rd) ...	Mr. Chapple	11.30	—	—	—	Th	—	—	
Biology and Botany (pre. sci.) ...	Mr. Assheton, Mr. Reed & Mr. Mullally	2	—	—	W	—	Fri	—	
Physiology (2nd)	Dr. Pembrey	9.30	M	—	W	—	—	Sat	
Histology (1st)	Dr. Pembrey, Mr. Ryffel, Dr. Kennaway, and Mr. Poulton	10.30	M	—	W	—	—	Sat	
Practical Surgery (3rd)	Mr. Bromley and Mr. Gardiner ...	12.30	—	Tu	—	—	Fri	—	
Practical Medicine (3rd) ...	Mr. Hunt and Mr. Mutch	12	—	—	—	Th	—	—	
Experimental Physics (pre. sci.)	Dr. Fison and Mr. Abram	12	M	Tu (2)	—	—	—	—	
Clinical Medicine (3rd & 4th) ...	The Assistant Physicians	1.30	—	—	W	—	—	—	
Clinical Surgery (3rd & 4th) ...	The Assistant Surgeons	1.15	—	—	—	—	Fri	—	
Morbid Anatomy (3rd & 4th) ...	Dr. Fawcett, Dr. French & Dr. Cameron	2	M	Tu	W	Th	Fri	Sat(12)	
Materia Medica (2nd)	Dr. Beddard	4	M	Tu	—	—	Fri	—	
Anæsthetics	Mr. Rowell (June)	—							
Operative Dental Surgery ...	Mr. Parfitt	12	—	—	—	—	—	Sat	
Chemistry	Vacant	9.30	—	Tu	—	Th	—	—	
Practical Chemistry	Mr. Merriman and Mr. Rogerson ...	10.30	—	Tu	—	Th	—	—	
Exp. Pathology (Gordon Lectures)	Vacant	12.30	—	—	—	—	Fri	—	

* No effort has been made to include the many demonstrations or practical work.

† The numbers in this column refer to the years in which this course should be attended.

Guy's Hospital Clubs' Union

THE FORMATION OF THE CLUBS' UNION, by the amalgamation of the various constituent institutions, took place in the summer of 1891. The objects of the amalgamation are to further the interests of the clubs and societies existing at the hospital by their mutual support, and to simplify the collection of subscriptions. By the payment of an annual subscription (see Clubs' Union Blue Book, p. 13) to the Clubs' Union, any student of the hospital can obtain the privilege of membership of the constituent institutions.

THE GROUND OF THE CLUBS' UNION, which is under the control of the council, is situated close to Honor Oak Park Station, on the London, Brighton and South Coast Railway, and to the Crofton Park Station on the South Eastern and Chatham Railway. It is nine acres in extent, and is the headquarters of the Guy's Football, Cricket, Athletic and Lawn Tennis Clubs. Return tickets at single fare are issued by the Brighton Railway Company. Under such restrictions as are found necessary by the committees of the several clubs, and are approved by the council of the Clubs' Union, every member of the Union has opportunities of practising and taking part in matches, and in the various sports and games. There is a large pavilion upon the ground, with dressing and lavatory accommodation. Refreshments can be obtained by members of the Union according to the tariff of the Students' Club.

CONSTITUENT INSTITUTIONS.

THE CRICKET CLUB.—President: C. H. Fagge, Esq., M.S., F.R.C.S.; Captain: G. W. M. Andrew; Hon. Sec. and Treasurer: A. H. Harkness.

Matches are played throughout the summer session, fixtures being made for three XI.'s. There are both a Senior and Junior Inter-Hospital Cup. Guy's has won the Senior Cup seventeen times since its inauguration in 1882. The Junior Cup has been in existence six seasons. Guy's has won it four times.

Practice matches are held early in May, and all freshmen should put their names on the list. Blues are given to the members of the Cup team, and Half-Blues to some members of the 2nd XI.

The Annual General Meeting will be held in March.

THE FOOTBALL CLUBS.—President: John Fawcett, Esq., M.D. Rugby—Captain: R. S. Kennedy; Hon. Sec.: O. Parry-Jones; Captain 2nd XV.: C. Gibb; Captain 3rd XV.: H. Parry-Price; Captain 4th XV.: E. N. Glover; and a committee of five, one representing each year. Association—Captain 1st XI.: J. Kyle; Hon. Sec.: A. C. M. Coxon; Captain 2nd XI.: A. Wallis; Captain 3rd XI.: D. Morris; and a committee of five, one representing each year.

The Rugby Football Club has now been in existence for over sixty years. Very little is known of its early history. Among the many well-known players who at one time or another have played for Guy's may be mentioned the following International footballers:—A. W. Pearson, W. W. Pinching, A. H. Jackson, L. Stokes (Captain 1877–8), A. S. Taylor, W. G. Mitchell, A. Allport, H. W. Dudgeon, A. Alcock, H. Lee, H. Archer, G. R. Hind (England); H. H. Jordan, E. Morgan (Wales); R. Evans (Scotland); F. O. Stokes (Ireland).

The Inter-Hospital Challenge Cup was instituted in 1874, and Guy's had the honour of being the first holders. Since then Guy's has held the Cup fifteen times, St. Thomas's ten times, London five times, St. George's three times, St. Bartholomew's twice, and Middlesex and St. Mary's once each. In 1891, Guy's, Middlesex, and St. Thomas's were left in, the ties not being played out.

Last season Guy's retained the Cup for the fourth year running by beating London in the final by 6 points to nil. Our club record was also good, the team winning 17 out of 23 matches played.

The 2nd XV. again won the Cup, and with the 3rd XV. had a good season.

A 4th XV. is now established, and a good fixture card has been arranged. Trial games will be played in the first week of October. For the benefit of freshmen in particular, we may state that lists will be put up in the Smoke-room, on which intending players should write their names as soon as possible. The officers of the clubs will at all times be very glad to give any information in their power.

The Association Football Club was founded in 1882, and a high measure of success has rewarded its efforts from its earliest days. Four years later (1886) the Inter-Hospital Challenge Cup (Senior) came into existence, and of the twenty-five occasions it has been competed for, Guy's has "been on top" no fewer than twelve times, St. Bart.'s being our nearest opponents with five wins. In its very palmiest days, Guy's also won the Surrey Senior Cup, viz., in 1887 and 1889. Last season we were beaten in the final for the Inter-Hospital Cup by St. Thomas's by 2 goals to 3. The 2nd team lost to St. Bart.'s in the final for the Junior Cup, but won the Surrey Junior Cup. In 1898 the Inter-Hospital Junior "Soccer" Cup was competed for for the first time, and of the eleven finals we have won five.

Early in October trial games will be arranged to take place at Honor Oak, more especially for the benefit of "freshmen," and it is to be hoped that no freshman interested in Hospital "Soccer" will hesitate, *for any reason whatsoever*, to avail himself of this golden opportunity of proving his worth on the field, for it is largely on the result of these games that his subsequent inclusion in the team depends. Notices of such trial games will be posted in the Smoking-room of the College. The club has entered for both the Surrey Senior and Junior Cups.

THE LAWN TENNIS CLUB.—President: W. Arbuthnot Lane, Esq., M.S.; Vice-President: J. Fawcett, Esq., M.D.; Captain: R. Curle; Hon. Sec., R. H. Lucas, and a committee of six students.

The Lawn Tennis Club was founded in 1888. Two teams are run during the season, which starts on May 1st and finishes at the end of July. There are two Inter-Hospital Cups. This year we won the Senior Cup. A trial game is held early in the season, and tournament singles are played for the Arbuthnot Lane Cup during the season.

THE ATHLETIC CLUB.—President: J. Fawcett, Esq., M.D., F.R.C.P. Hon. Secs. and Treasurers: H. W. Evans and H. Mather, and a committee of eleven. The annual summer meeting is held in June, when the Lucas Challenge Cup is competed for, at the Clubs' Union ground. The team which represents Guy's in the Inter-Hospital Sports is chosen on the results of our sports. Blues and Half-Blues are awarded at the discretion of the committee. There is also a contest between the United Hospitals and Dublin University when possible.

In connection with the Athletic Club there is a Cross-Country Club, which has runs every Saturday, and races with the leading London clubs, and the Universities of Oxford, Cambridge and Dublin. Half-Blues are awarded in the Inter-Hospital Cross-Country race. Full particulars and notices of all club matters are to be found on the colonnade notice-board and in the smoke-room.

THE GOLFING SOCIETY.—President: G. Newton Pitt, M.D. Vice-Presidents; H. C. Cameron, M.D., H. L. Eason, M.D., M.S., C. H. Fagge, M.S., F.R.C.S., J. Fawcett, M.D., A. W. Ormond, F.R.C.S., F. J. Steward, M.S., F.R.C.S., R. Davies-Colley, M.C., F.R.C.S., and E. C. Hughes, M.C., F.R.C.S. Committee: R. Creasy, R. Curle, L. Bromley, J. G. Saner, J. M. Jarvie. Hon. Secretary and Treasurer: F. D. Saner.

This society was formed in May, 1908, for the purpose of promoting Inter-Hospital Golf, and also to provide local interest by means of competitions, matches, etc. The society is affiliated to the Clubs' Union, and therefore all members of the Union are members of the society. Matches are arranged with other hospitals and clubs. A Monthly Medal Handicap Competition is held on the first Wednesday of each month. Cards and information can be obtained from the Secretary or any of the Committee.

An arrangement has been made by which members of the above society may play on five days in the week—viz., Monday to Friday—at the Ilford Golf Club, on payment of an annual subscription of £1 1s., without entrance fee. Such members may play on Saturdays, Sundays and Bank Holidays at the rate of 2s. 6d. a day.

We are indebted to the Committee of the West Essex Golf Club for the following arrangements:—Members of the Guy's Hospital Golfing Society may become five-day members of the West Essex Golf Club on payment of an annual subscription of two guineas, without entrance fee. Such members may play on Saturdays and Sundays on payment of a daily green fee of 2s. 6d. Members of the Society may play at West Essex any day, except Sunday, at a green fee of 2s. 6d. a day, On Sundays the green fee is 5s., unless accompanied by a member of the West Essex Club, when it remains at 2s. 6d. An arrangement has also been made with The Foxgrove Club, Beckenham, by which members of the society may play on any day, by payment of a green fee of 2s. 6d.

HOCKEY CLUB.—President: F. J. Steward, Esq., M.S., F.R.C.S. Vice-Presidents: A. W. Ormond, Esq., F.R.C.S., and C. H. Fagge, Esq., M.S., F.R.C.S. Captain: O. G. Morgan; Hon. Sec. and Treasurer: R. C. Matson.

For the sixth time in succession, Guy's have won the Inter-hospital Hockey Tournament. This year, however, the final against St. Bart.'s Hospital proved to be a most thrilling game, in which, in spite of our opponents' great defensive strength, we were victorious by two goals to one.

The General Meeting has been provisionally arranged for October 4th, and there will be two trial games early in that month. It is earnestly hoped that all freshmen and others who desire to play will put their names down on the list in the Smoking Room.

All communications should be addressed to O. G. Morgan or R. C. Matson.

THE PUPILS' PHYSICAL SOCIETY.—Hon. President: Sir James Goodhart, Bart., M.D., LL.D. Hon. Vice-Presidents: Frederick Taylor, M.D.; Sir Geo. H. Savage, M.D.; C. J. Symonds, M.S. Hon. Secretaries: G. W. Goodhart, M.B., B.C.; G. T. Mullally, M.B., B.S.

This flourishing society was founded in 1830, on the plan of the old Physical Society, which existed during the latter part of the eighteenth century at Guy's Hospital.

At the Pupils' Physical Society, which meets each fortnight on alternate Wednesday and Saturday evenings, a paper on some subject, not necessarily of medical interest, may be read by any member, to be followed by a discussion. "Clinical" and "Pathological" Evenings are devoted to the exhibition and discussion of interesting cases or specimens which may be shown by any member. Members are reminded that in connection with the society the following prizes are offered for competition: The Treasurer's Prize of £5 is given annually; the subject of the Essay for this year will be published in the GAZETTE later. The society offers a prize of £10 for the best paper read during the session; a prize of £5 to the member who distinguishes himself most in the discussions; and a prize of £5 to the member who exhibits the best specimens of scientific interest during the session.

THE DEBATING SOCIETY.—President: L. E. Shaw, M.D. Vice-Presidents: J. Fawcett, M.D., E. I. Spriggs, M.D., A. W. Ormond, F.R.C.S., H. C. Mann, M.D., M.R.C.P., A. R. Thompson, F.R.C.S., T. B. Layton, F.R.C.S. Hon. Secretaries: H. C. Godding, G. Neely. A committee of the Secretaries and six students.

Members of the Clubs' Union, junior as well as senior, are specially invited, in their own interests, to attend as many as possible of the meetings of this society.

The endeavour has been made to choose subjects within the scope of the limited interests of the medical student, and it is hoped that all will try to be present who are not too blasé to listen to the views of others, or too slack to give others the benefit of their own.

The list of debates will be published in the GAZETTE; anyone willing to take part is particularly requested to communicate with the Secretaries.

THE DENTAL SOCIETY.—President: R. Wynne-Rouw, Esq. Hon. Secretary and Treasurer: G. Neely.

The object of this Society, which was founded in 1894, is the promotion of interest in Dental subjects, and the discussion of Dental topics. Papers are read before the Society each month, and a prize (value £5) is awarded for the best paper read before the Society during the session. Casual communications are invited at all meetings, and a prize (value £1) is awarded at the end of the session for the best set produced.

One meeting during the session is set apart for the examination and discussion of cases of special interest, the patients being brought up for examination.

The meetings are held every month during the winter session in Class Room No. 2 in the Medical School Buildings. The meetings take place at 4 p.m. on the second Friday in the month, and tea is served before the meetings for members attending the meetings. New men are strongly urged to attend and take part in these meetings, which, in the past, have proved instructive as well as interesting.

THE GUY'S HOSPITAL REPORTS.—Edited by F. J. Steward, M.S., and Herbert French, M.A., M.D.

The Reports are published annually, and each subscriber to the Clubs' Union is entitled to a copy, which he may obtain in the Wills Library from the Librarian. Each volume contains papers by members of the Staff of the Hospital and Medical School upon original work done in the Hospital during the preceding year; it also contains a list of the gentlemen who have been educated at Guy's Hospital, with the appointments they have held during the year, the examinations they have passed, and the prizes and honours they have won. The first volume appeared in 1836; copies of the earlier volumes can be obtained from the Editors. The value of this annual publication is obvious, and every Guy's man is proud of the original papers of its Staff, from those of Addison, Bright, and Hodgkin, to those of the present day.

THE STUDENTS' CLUB.—Officers till 1912 (March). President: W. Hale White, M.D.; Treasurer: John Faweett, M.D.; Hon. Secretary: T. B. Layton, M.S.; Hon. Assistant Secretary: C. H. Rippmann, M.D.; and a committee of eight.

The above named manage the affairs of the Club, a full account of which will be found in the Clubs' Union Blue Book.

GUY'S HOSPITAL CHORAL SOCIETY.—This Society will begin rehearsals for the Winter Season early in October. The practices are held every Friday, at 5 and at 8 p.m., in whatsoever room shall be deemed convenient for the occasion. Notices are posted on the screens opposite Astley Cooper door.

Since the success, and, indeed, the very existence of the Society depends entirely upon the keenness and enthusiasm of those students who are musically disposed, it is hoped that all freshmen who have voices, or other musical talent, will announce the fact by their presence at the rehearsals.

All particulars may be obtained from the secretaries, T. W. Sheldon and H. Q. F. Thompson.

BOXING, FENCING AND GYMNASTIC CLUB.—The Pavy Gymnasium is situated in the Students' Club, and is open to members of the Clubs' Union at all times.

Throughout the winter a class is held once a week in each of the above-named sports, and is attended in each case by a thoroughly competent instructor.

It is sincerely hoped by the committee that all men who are interested in these sports, as well as any others who would like to become so, will make a point of attending the Annual General Meeting and making themselves known to the Secretary or to one of the Committee.

Towards the end of last season an excellent wrestling mat was acquired by the club, and it is proposed to endeavour to obtain the services of an instructor in wrestling if sufficient support is given by members interested in that sport. Members who wish to take up wrestling should attend the General Meeting, and make their wishes known to the Secretary.

The Sciences.

Anatomy and the Dissecting Room.

The primary object of dissecting is to learn anatomy. By seeing the structures lying in their proper relations one to another a mental picture is obtained which cannot be had by reading or looking at pictures; by cleaning these structures and tracing them from above downwards their course is impressed on the mind; and by removing each muscle from its attachment these facts are learnt which have been taken for granted when first reading the bone.

In addition dissecting trains the fingers and develops the sense of touch, and that delicate muscle sense which is so necessary to aid the eye in carrying out a delicate manipulation.

The basis of anatomical knowledge is a thorough acquaintance with the bones. These can only be learnt by handling the bone and making out each point on it as the description in the book is being read. Hence it is absolutely essential to buy a half skeleton and a disarticulated skull. (These may be had from Hancock, the dissecting-room porter, who will also supply apron and sleeves—price 2s. 6d.—and cases of instruments).

The man who sits in an easy chair with an open Gray upon his knees and no bones by his side is simply wasting his time.

BOOKS.

The student must have two books of anatomy, the one to read it systematically by starting with each muscle, nerve, or other structure, the other to read it typographically as each structure is exposed in the course of dissection.

The book for the latter is Cunningham's Practical Anatomy (2 vols., 10s. 6d. each); it should be taken into the room and read before, during, and after each day's work.

The best book for the former is Gray's Anatomy. The description of the bones in this text-book is unrivalled, and this alone would make it the most useful for the ordinary man. Those reading for higher examinations might also get Quain's Anatomy, of which the eleventh edition is now appearing in parts. These will also need at some period a book on Embryology. The two best are Keith's book, and the first volume of Quain. Both should be read, but if the student only wants to have one he should get the former.

HOW TO BEGIN WORK.

The following rules will help:—

1. Bring up an old coat, and procure an apron and sleeves. These keep you clean. Men are sometimes seen dissecting in their everyday coat, or in their shirt-sleeves without rolling them up. The cuffs and arms then get sodden in fat and body fluid, which substances are transferred in the evening to the dinner cloths of the student's parents or landlady. Such dirty habits need no comment.

2. Deposit 5s. at the Medical School Office and procure the key of a locker in which to put these and other requisites for dissection.

3. Attend at 12 noon on Monday, October 2nd, the introductory demonstration given by the Senior Anatomy Demonstrator. You will there be given a "Red Book" containing the rules of the dissecting-room, and will be told in greater detail than is possible here, the ways of the room and the work to be done.

4. In the afternoon of October 2nd look for your name on one of the lists, and find out what part has been allotted you. Then find out the times of the bone and other classes which correspond to this part. They are held by Mr. Saner and Mr. Mullally.

5. Either that afternoon or early next morning begin dissecting, and remember

(i.) Not to be in a hurry.

(ii.) To read carefully in your book (Cunningham) the pages describing the surface markings of the part, and the lines of incisions that must be made.

(iii.) To turn back *the skin only*, leaving the fat upon the body.

(iv.) To remove carefully this fat, leaving intact the white layers of "deep fascia" which cover the muscles.

(v.) To clean the surface of the muscles. Cut with the grain or muscle fibre, and clean it *right up to its attachment to the bone.*

(v.) Always read ahead of your dissection, either in the pickle-room, or wax-model museum.

PHYSIOLOGY.

Physiology, which forms the basis upon which scientific medicine and surgery rest, will require the most earnest attention on the part of the student during the short space of two years which he can devote to it, and he will find that his understanding of the medical, surgical and pathological problems with which he will meet later on varies directly with the thoroughness of his physiological ground work. While attendance at physiology lectures and the reading of some elementary work on the subject, such as Huxley's *Elementary Lessons in Physiology*, or the smaller works by B. Moore and by Foster and Shore, during the first year is undoubtedly useful, yet for most men the practical study of Physiology begins in the first summer session. During this session he attends the classes in Practical Histology which are held three times a week, and for which he will need a microscope, certain mounting materials, and Schäfer's *Essentials of Histology*, which should be carefully studied.

During the first summer session and the first half of the second winter session the student should attend the lectures on Physiology (for times, *vide* table, p. 404), and also the tutorial classes which are held by the demonstrators. During this time he should read the subject in some text-book such as Starling's *Principles of Human Physiology*, Halliburton's *Handbook of Physiology*, Stewart's *Manual of Physiology*, or Howell's *Text-book of Physiology*. While attending the practical classes held during the winter the student is advised to read *Practical Physiology* (published by Arnold).

Candidates for the M.B. of London or other Universities must in addition attend the class in advanced practical physiology held twice a week during the second winter session, and this class should also be attended by men working for the first F.R.C.S. examination.

Those desirous of obtaining distinction in the second M.B. examination should supplement the course of reading indicated above with original papers in the *Journal of Physiology*, with parts of Schäfer's *Text-book of Physiology*, *Recent Advances in Physiology and Bio-chemistry*, edited by L. Hill; *Further Advances in Physiology*, edited by L. Hill; and Leathes' *Problems in Animal Metabolism*. Revision classes are held by the demonstrators during the two months preceding the first F.R.C.S. and the M.B. examinations and should be attended by all candidates.

CHEMISTRY AND PHYSICS.

The student is often tempted to regard the study of Chemistry and Physics as one of very little use when once his preliminary examination is passed; but he will find in his study of the sciences of Physiology, Pharmacology and Pathology that a proper understanding of Chemistry and Physics is invaluable and essential. That this is so is now fully recognised in the curriculum of the London University which should be carefully studied by every London student.

The matriculated student will, in his first year, study Inorganic Chemistry, Physics, and General Biology, and at the end of this period, provided he has worked diligently in the laboratories, and attended the lectures and revision classes regularly, should have no difficulty in passing the First Examination for Medical Degrees. In his second year he will study Organic and Applied Chemistry, together with Anatomy and Physiology, and at the end of the second winter, provided, as before, that he has worked steadily from the commencement, should have little difficulty in passing the First Part of the Second Examination for Medical Degrees. Anatomy, Physiology, and Pharmacology are then taken as the Second Part of this Examination, at the close of the third winter, prior to commencing clinical work in the wards.

From the Conjoint and the Dental student only six months' work is required. but those entering without previous knowledge of Chemistry and Physics will find that time hardly sufficient, and are usually advised to take the full "year" of three terms, or nine months.

The importance of practical work cannot be too greatly emphasized, and lectures and books can but supplement work done in the laboratory. Guy's men have no excuse for neglecting laboratory work. The Chemical Laboratory, for example, is open every day from 9.30 a.m. to 5 p.m., and students are strongly urged to form early the habit of spending their spare hours, apart from those officially allotted, in one or other of the laboratories. Reading should be left for the evening. After a day in the laboratory, reading a good text-book will be found to give ample scope for thought, and rarely, indeed, be tedious. It is reading without practical experience that is so destructive of thought, and such reading is very properly stigmatised as "cram." "Cramming," or the memorising of words and phrases, without a knowledge of the corresponding realities, is one of the worst intellectual habits a student can acquire, and in the long run invariably leads to failure.

For the coming term, Chemistry Lectures start on Tuesday, October 3rd, at 12.15 p.m. (Chemical Theatre, entrance opposite Laboratory, third floor); but before this students should go to the Chemical Laboratory (10 a.m.), to receive their locker keys and apparatus and commence practical work. Practical Organic and Applied Chemistry starts on Monday, October 2nd, at 2 p.m., and the Lectures on Wednesday, October 4th, at 11 a.m. Physics Lectures commence on Monday, October 2nd, at 12 (Class Room IV., second floor).

PRACTICAL PHARMACY, MATERIA MEDICA, AND DISPENSING.

One of the many important things all medical students must know is how to write a prescription; it may even be necessary for the majority, when qualified, to know how to dispense the same, so that the student will do well not to neglect acquiring as much knowledge of this subject as he can.

The student is taught practically the methods of prescribing, he practises writing prescriptions for combinations of drugs with due regard to incompatibility, and he is taught how to dispense the prescriptions he has himself written.

The course covers the syllabus of the Practical Pharmacy of the Conjoint, the Intermediate M.B. Lond., and the Third M.B. Cantab.

During the year there may be three courses of three months each, should a sufficient number of students require instruction, which is given in the practical pharmacy class at the Dispensary by Mr. Finnemore, B.Sc. Lond., F.I.C., the Hospital Pharmacist.

MEDICAL WARDS.

The medical ward clerk should not read through a text book, but should become thoroughly acquainted with those diseases of which he finds examples in the beds which have been allotted to him. He should spend all his spare time in the medical words, observing and learning the physical signs of health and disease. If he is keen the house-physician will give him an opportunity of helping at "tappings" and venesections, and watching him examine an acute abdomen. He must have ready rough notes of the cases for the Medical Registrar, who goes round four times a week starting in the female wards at 10.30, and he must write a full report for the Physician, and after the visit of the Physician, *the ward clerk should at once enter the remarks made by the Physician and his diagnosis.* The wards are always open to the clerks after 10 a.m., except from 1 to 1.30 p.m. The reports should be brief but thorough, and when in difficulties the ward clerk will always find the Registrar and Clinical Assistants ready to assist him. No ward clerk will know anything of medicine unless he attends regularly in the post-mortem room. The books usually read here are "Taylor" and "Osler," "Clinical Methods," by Hutchinson & Raney, or "Medical Laboratory Methods," by French.

PATHOLOGY.

As soon as a student has passed his Second Conjoint or M.B. examination, he should begin his study of pathology. Without a sound knowledge of this science it will be impossible for him to obtain any real knowledge of medicine or surgery, and he can, therefore, never be too emphatically urged to attend the autopsies on everyone of his cases, and to spend as much time as possible in the post-mortem room. Autopsies are conducted every day of the week at 2 p.m. (Saturdays at noon), by Dr. Fawcett, Dr. French and Dr. Hertz. The microscopical examination of material removed by operation, is often the only means of arriving at a definite diagnosis, and it is therefore equally important that the student should obtain an adequate knowledge of microscopical appearances in disease.

Classes on microscopical pathology are held by Dr. Boycott and Dr. Eyre on Wednesday afternoons and Thursday mornings throughout the year. Bacteriology being taken in October to December and April to June, and morbid histology from January to March and July to September. Further the student should attend Dr Fawcett's class on medical pathology, and Mr. Rowlands' surgical pathology which are held three times a week.

In order to learn something of the principles which underlie pathology, the student should attend the lectures on general pathology. In May and October there are also informal classes adapted for the requirements of candidates for the first part of the Third M.B. Cantab., and the final M.B. of Oxford and London Universities.

The best elementary manual is Green's "Pathology"; Hewlett's "Pathology, General and Special" is good but hardly full enough. For general pathology read Adami's "General Pathology" and Lazarus-Barlow's "General or Experimental Pathology," and for morbid histology Grünbaum's "Essentials of Morbid Histology," or Woodhead's "Practical Pathology," of which the illustrations are very good. Many of the articles in Allbutt and Rolleston's "System of Medicine" should be consulted. For bacteriology Muir and Ritchie's "Manual of Bacteriology" is recommended.

BACTERIOLOGY.

Every Guy's man devotes at least three months to the practical study of Bacteriology. This compulsory course comes under the heading of Microscopical Pathology, and is held every Wednesday afternoon and Thursday morning from October to December, and again from April to June.

Bacteriology, although one of the youngest of the auxillary sciences, has already made a most profound impression upon the theory and practice of both medicine and surgery, and by providing appropriate and specific treatment for bacterial infections has created the demand for exact as well as accurate diagnosis. Consequently, particular attention is devoted in this class to the technique of the various investigations undertaken in connection with the ward work. The student himself stains sputum, pus and morbid exudates by various methods to demonstrate the associated bacteria. He estimates the amount of specific agglutinins or opsonins contained in the serum of patients under treatment in the wards. In addition, he is instructed in the practical work of media-making, culture and staining methods, and is encouraged to repeat for himself during the intervals between successive classes any observations and experiments previously carried out, in order that he may be adequately prepared to take advantage of the advanced classes and lectures which are available during the fourth and fifth years of study, and to equip him for the performance in general practice of those more obvious methods of bacteriological diagnosis which the past generation of medical men are compelled to entrust to the pathological experts of their own or other hospitals, or, as so often happens, to the various commercial houses which make a speciality of clinical research and diagnosis. Demonstrations are also given upon the life-history of the various organisms pathogenic to the human race, and the changes such organisms undergo or produce when they gain entrance to the human tissues.

In order that the student may make the fullest possible use of his opportunities of correlating the clinical symptoms resulting from the infection of the patient's tissues by various pathogenic organisms, the class in bacteriology should be taken out as early as possible during the period of clinical study, and the work has so been planned that the whole of the six months devoted to microscopical pathology may run coincidently with the appointment of medical or surgical clinical clerk: and it should be emphasised that the clerk's absence from the wards during the hours the class is being held is not only sanctioned, but, indeed, is expected by his chiefs.

During February and March of each year a course of lectures is given dealing even more specially and technically with the applications of bacteriology to practical diagnosis and treatment, and in these the various remedial agents (serums and vaccines) which have been elaborated in the bacteriological laboratory for the treatment of disease are fully discussed, together with the facts and theories relating to natural and acquired immunity upon which bacteriological therapy is based.

THE SURGICAL WARDS.

In the surgical wards there is a division of labour, and corresponding to this division, the appointments fall into two classes—clerking and dressing. The student's first introduction to clinical work is as clerk in the surgical wards, and it is not unlikely that he may, on his first entry, be a trifle discouraged. The reasons for this are obvious. Entirely ignorant of surgery and even of the terms in common use, he is at once required to write full accounts of the cases admitted to the wards. He will find, however, that, with the assistance available at his disposal, his difficulties will be found to be anything but insurmountable.

The most important point for a clerk to remember is that in after years cases and not book work will form his mainstay in practice, and that he cannot too soon get the clinical entity and results of treatment into his memory.

Let him bear in mind that to him is given by the hospital the task of keeping its records. These are bound and kept, and by his work thus perpetually in evidence a man is judged. Bad reports are a lasting disgrace; good reports a lasting honour. There is no better way of impressing the facts of a case on one's mind than is gained by the construction of a correctly detailed report, which, moreover, will be of value if the case has to be referred to at a future date. The importance of good careful work by the clerks cannot be over-estimated. In the nature of things it cannot be perfect, but it must be as perfect as he can make it. By his first work in the wards he will be judged, and he will find that it is very hard to live down a bad clerkship. At the same time that he bears in mind the difficulties and responsibilities of his post, he should remember that he is a junior, and that any assistance he can lend his seniors should be offered ungrudgingly, and in return for this he will undoubtedly meet with that consolation and help in his work which is so necessary.

It is essential that either the clerk should live within walking-home distance of the hospital, or else get a room for the take-in week. All really good casualty work is done at night, and the periods for seeing the actual application of Croft's and Bavarian splints and treatment of fractures is all too short as it is.

As soon as he is appointed, he should obtain from the Medical School office the "Notes on Surgical Case-taking" issued by it. A few days before taking over the work he will meet the surgical registrar to find out to whom he is appointed, and should then learn from his predecessor what he can about the cases he is to take charge of, so that the work may be continued as nearly as possible without a break. At the present time there is an entire change of clerks every three months, but in the way indicated above, the break in the work may be obviated to some extent. He should learn quickly to take accurate pulse and respiration rates, and test urine, for without any exception the temperature, pulse and respiration rates, and condition of he urine must be included in the notes of every case on admission. The surgical registrar sees every new case with the clerk on the morning after admission, when he expects a history of every case to be ready. This, if vague, is useless. All symptoms should be set down in exact order, with the dates of their appearance. The exactness in detail is of the highest importance, and is a measure of the care with which the clerk has done his work. He should have a note-book, and should put down in it everything about the case that he can obtain from the surgeon, house-surgeon, clinical assistant, and dresser. This should be copied into the report as soon as possible. We would impress upon each clerk the value of seeing everything done by the dressers or house-surgeons—the operations, putting up fractures, especially when done at night in take-in week, and this should apply to manipulations on every case under the surgeon, and not only to the cases which the individual clerk has to report—as much may be learnt in this way which otherwise can only later be gathered with much greater effort.

He should also attend the practical surgery classes of the surgical registrar, who gives four courses a year, each beginning on the appointment of the new surgical ward clerks, and especially designed for their instruction in all matters relating to that appointment, and also the course of practical pathology which is then in progress.

Lists of the duties appertaining to each appointment are supplied to the students, and these are to be carefully followed out. The hospital not only expects this, but insists on it. We have laid stress so far on the appointment of surgical ward clerk, as it is the first post that the student holds, and because he is so often quite unaware of the objects of the appointment.

The surgical wards are visited every day by the surgeons and assistant surgeons at 1.45. Notice of operations, which usually take place on Mondays, Tuesdays, Thursdays and Fridays, except for emergencies, is posted overnight in the colonnade by the House-Surgeon for the week. The surgeons are assisted at the operations by the dressers, and the particular clerk to the case should remain close by throughout the whole operation.

Although we believe there is no rule which prevents freshmen attending operations and clinical demonstrations, we would point out that such a course of action is useless to them, and is not encouraged by the authorities.

DAYS AND HOURS OF ATTENDANCE ON HOSPITAL PRACTICE.

Accidents and urgent cases of all kinds are admitted by the Maze Pond entrance at any time of the day or night.

THE WARDS.

Medical Wards.—Dr. Hale White (2), Mondays, Tuesdays and Thursdays. Dr. Pitt (2), Mondays, Tuesdays and Fridays. Sir Cooper Perry (2.15), Mondays, Thursdays and Fridays. Dr. Shaw (2), Mondays, Tuesdays (10.30), Thursdays (10.30) and Fridays.

Surgical Wards.—Mr. Lane (2), Mondays, Tuesdays, Wednesdays, Thursdays and Fridays. Mr. Dunn (1.30), Mondays, Tuesdays, Wednesdays, Thursdays and Fridays. Sir Alfred Fripp (1.30), Tuesdays and Fridays. Operations (1.30) daily. Mr. Steward (1.30), Mondays, Tuesdays, Thursdays and Fridays.

Obstetric Ward.—Mr. Targett (2), Mondays, Wednesdays and Thursdays. Mr. Bellingham Smith (2), Tuesdays and Fridays.

Ophthalmic.—Mr. Eason (2), Mondays and Thursdays. Mr. Ormond (2), Tuesdays and Fridays. Operations (2), Tuesdays and Thursdays.

THE OUT-PATIENT DEPARTMENT.

The days and hours of attendance in the Out-Patient Department of the hospital are as follows:—

Medical Cases.—Dr. Fawcett (1), Thursdays. Dr. Beddard (1), Wednesdays. Dr. French (1), Fridays. Dr. Hertz (1), Mondays. Dr. Cameron (1), Saturdays.

Surgical Cases.—Mr. Turner (1), Mondays. Mr. Fagge (1), Wednesdays. Mr. Rowlands (1), Thursdays. Mr. Hughes (1), Saturdays. Mr. Davies-Colley (1), Tuesdays and Fridays.

Obstetric.—Mr. Targett (1), Mondays. Mr. Bellingham Smith (1), Thursdays.

Ophthalmic.—Mr. Eason (1), Tuesdays and Fridays. Mr. Ormond (1), Mondays and Thursdays.

Children's Diseases.—Dr. Cameron (1), Mondays; (9), Fridays.

Dental.—The Dental Staff (9) every week-day.

Throat and Ear.—Mr. Mollison (1), Tuesdays and Thursdays. Mr. Layton, Wednesdays and Fridays.

Skin.—Sir Cooper Perry (1), Tuesdays.

Electro-Therapeutic.—Dr. Hertz (1.30), Wednesdays and Thursdays.

Actino-Therapeutic.—Mr. Iredell (9.30), every week-day.

Orthopædic.—Mr. Rowlands (9), Tuesdays.

Nervous Diseases.—Dr. Hertz (9), Wednesdays.

Genito-Urinary.—Mr. Thompson (9), Wednesdays and Saturdays.

DENTAL SCHOOL.

The dental student is supplied at the Medical Office with the Prospectus, Standing Orders, Notes on Probationary Work, List of Instruments, Calendar, and Clubs' Union Book.

These pamphlets should be carefully read in order that acquaintance may be made with the general arrangements of the school and the scope of the work upon which the student will become engaged.

Instruments having been purchased at a dental depôt, the student should satisfy himself that he has been supplied with all of those described in the hospital list.

Probationary work upon the phantom head will occupy the time for about two months. This operative course, conducted by the staff demonstrators, is very comprehensive. It includes most of the conservative operations that the student will subsequently be called upon to perform upon patients, namely, gold and other fillings, crowns, inlays, and the treatment of devitalized and septic teeth. These manipulations upon the dummy, when done in a thoroughly sound manner, form a capital ground-work in operative dentistry.

Pupils in Dental Mechanics are received at the hospital, and a systematized and graded course of instruction is carried out by a competent teacher.

The regulations of the Royal College of Surgeons of England require that students shall pass two professional examinations for the dental licence. At the first examination certificates must be produced, *inter alia*, of having been engaged in the practice of dental mechanics under a registered dental surgeon, or under the direction of the superintendent of the mechanical department of a recognised dental hospital, during a period of two years, and of having manufactured and adjusted six dentures and six crowns.

As this examination may be passed in the month of May, the work of the first winter session should be largely devoted to demonstrations, dental mechanics, and lectures

Students in difficulties about their work and needing advice are invited to consult the Dean, or any member of the Staff, who will be pleased to do what they can to promote the interests of students.

SPECIAL DEPARTMENTS.

There are at present ten special departments in the Hospital, namely, Throats and Ears, Eyes, Skins, Gynæcological, Nervous, Children, Actino-therapeutic, Electro-therapeutic, Orthopædic and Genito-urinary. In all these departments the latest methods of diagnosis and treatment are to be seen, and much valuable information may be gained by the student.

The Choice of a Microscope.

Immediately on entering the hospital our medical student finds himself faced with a problem of serious import, although he may at the moment fail to recognise it as such, viz., the Choice of a Microscope. The present-day study of medicine necessitates the use of the microscope from the most elementary stages until the moment when our fully-fledged medico leaves his *alma mater*, and, indeed, after that, if he is to put into practice the many aids to diagnosis which he has studied in the hospital laboratories. Occasionally it happens that he is already provided with an instrument of weird and wonderful design which served his forbears during the early days of microscopy, but such an instrument is useless at the present day. A comparatively simple microscope is adequate for the work carried out in the biology class, where our student first comes to hand-grips with the microscope, but it must be borne in mind that later, when studying histology, and more particularly when he embarks upon the study of bacteriology, a really sound instrument and first-class lenses become absolutely essential.

We would impress upon the man who enters the hospital totally unfamiliar with microscopical work, the fact that the services of his teachers, whose experience in microscopical matters is extensive, and has been quickened by the observation of difficulties encountered by past generations of students, are always at his disposal. There should, therefore, be nothing to prevent him from purchasing at the very outset of his student's career, a microscope stand of thoroughly sound construction, and of such a pattern that the additions necessary to fit it, even for research work, can be added from time to time as the necessity arises, at comparatively small cost.

Although some twenty or thirty years ago Continental makers were unrivalled in the manufacture of microscopes, and still retain much of the reputation they then gained, yet at the present day the stands made by some of the British firms are undoubtedly superior in materials, workmanship, and attention to constructional details, and we would strongly urge the purchase of a stand of English manufacture; such for example as the Stand H (Edinburgh Students) made by Messrs. Watson & Sons, 313, High Holborn. This is of the tripod pattern, jointed, provided with a rack work, coarse adjustment, fine adjustment of the lever type, large stage, with square opening, fitted with mechanical movements, compound sub-stage (to which additional apparatus may be attached in the future), and a swinging double mirror, plane and concave, and costs about £10. The addition of a 1in.

lens, a $\frac{1}{8}$in. lens, and two eye-pieces, one magnifying two diameters, the other eight, at the cost of about another £3, provides the student with an instrument which will prove a faithful friend during the preliminary studies of biology and physiology. It will also serve him for his morbid histology, and when he enters the bacteriological class he will merely need to add an Abbé sub-stage condensor, costing from 15s to £1, a triple dust-proof nosepiece, £1, and a $\frac{1}{12}$in. oil immersion lens, which will cost him a further £5. Practically all the standard makers put a really good immersion oil lens upon the market at this figure, the best being those supplied by Watson & Sons, Crouch (Agents, Messrs. Maw, Son & Sons), and the Continental firms of Zeiss, Leitz, and Reichert.

In chosing a microscope it is not always true economy to obtain the entire equipment from any one firm; and it may be well at times to get a stand from one maker, one lens from another, the second lens from a third, and so on, for all lenses, etc., are made to standard screws, therefore accessories manufactured by different firms are interchangeable; and in this connection the expert knowledge of his teachers in the medical school is so valuable to the student.

Such a microscope as we have sketched out is the ideal from the point of view alike of the student and the teacher; but in some instances the initial cost may be greater than the student cares to incur, and if this is so, he will find that nearly all the reliable firms make less costly models, which will serve his purpose. For a student's microscope of proved reliability, Messrs. Watson & Sons' "Stand F" and "Fram" models are to be recommended; these instruments, with 1in. and $\frac{1}{6}$in. objectives, eye-piece, and case cost £7 17s. and £6 5s. respectively.

Or again, the student may occasionally be able to acquire a good second-hand microscope comparatively cheaply, but such an instrument should never be purchased unless he can obtain it on approval, and submit it to expert opinion before completing the purchase, especially if the microscope is to be obtained from a pawnshop or second-hand dealer. A good plan, often productive of marvellous bargains, is to enquire of some first-class firm whether they have an instrument of their own make for disposal second-hand, as it sometimes happens that a microscopist disposes of a particular microscope in part-payment for a more expensive model, and in this case the purchaser of the second-hand instrument obtains the guarantee of the maker that the microscope is in good condition. Second-hand lenses may also be picked up occasionally; Messrs. Baker & Co., High Holborn, and Messrs. Millikin & Lawley in the Strand, usually have a good selection of second-hand lenses. Slide boxes or cabinets to contain finished slides can be obtained of any of the microscopical instrument makers, the nearest being Messrs. Stanley, whose place is close to London Bridge Station.

Instruments.

Both in the wards and in the dissecting-room and the physiological laboratory the student will find that he needs several instruments. In the wards he will want a stethoscope, dressing instruments, tape measure, and possibly such instruments as an ophthalmoscope, etc., and, in his previous work, a dissecting case is an absolute essential.

There are many instrument makers in London, the majority of whom make a point of catering for the new student.

The student would do well to give Messrs. Down a call and inspect their large and varied stock of dissecting cases, dressing cases, midwifery bags, etc. The firm supplies all apparatus necessary for work in the wards or in the laboratories, and all their material is of the best quality. The Holborn Surgical Instrument Company, Ltd., 26, Thavies Inn, Holborn Circus, E.C., have also a large stock of instruments, at comparatively cheap prices, while Messrs. Millikin and Lawley, Strand, London, W.C., have always on hand a large variety of new and second-hand instruments and bones.

At all these firms the student may obtain blood-counting apparatus, ophthalmoscopes, pocket spectroscopes and other desirable, if not absolutely indispensable, instruments. Messrs. Watson and Sons, of 313, High Holborn, and Mr. Baker, of 244, High Holborn, however, list special sets of blood-counting apparatus designed for students and clinical use, and in addition stock several sets of microscopical apparatus, including stains, etc. Messrs. Stanley, Station Approach, London Bridge, who are opticians to Guy's Hospital, have a large and extensive stock of microscopical apparatus, such as slides, specimen boxes, etc., and their shop is conveniently situated for those who cannot afford much time. Their articles are of excellent manufacture, and thoroughly satisfactory.

Books.

The student who wishes to obtain his books at once should not take the first he sees on any particular subject, but would be wise to consult his demonstrators first; the number of text-books is very large, and the choice is a difficult matter to the inexperienced. Roughly speaking, second-hand books are very seldom worth anyone's while to buy, chiefly because medical science is progressing so rapidly that new editions are constantly being published.

The number of publishers of books for medical students is great. Messrs. Churchill published Taylor, Jacobson, Goodhart, Fagge, and many other well-known works. Messrs. Macmillan publish Allbutt, Foster, and a great number of first-year books; Messrs. Longmans, Green & Co. publish the famous Gray's Anatomy. Mr. H. K. Lewis, 136, Gower Street, publishes a number of medical books, and has also a medical circulating library which is valuable to students who wish to see all the latest books. Mr. Murray also publishes many well-known medical books, as also do Smith, Elder & Co.; Philip & Son; and Cassell & Co.

As we have mentioned, it is rarely that second-hand books will be required, but there are cases in which they are valuable. Mr. Chas. Sawyer. 29–31, New Oxford Street, W.C., has a long list of last editions at very moderate prices, and there are other second-hand booksellers.

All books can be obtained from Mr. H. H. Grattan, in Borough High Street, who is the "official bookseller" to the hospital. Many well-known books he can supply over the counter; any others desired he will have in an hour or two.

Osteology.

The question of the purchase of bones is always an important one. Millikin & Lawley, in the Strand, make a speciality of supplying the medical student with this part of his equipment.

Ed.—J. A. R.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 634.] OCTOBER 12, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	413–415
Constructive Anatomy: A Suggestion	416–417
Dental Society	417
A Case of Retroflexion of the Uterus	417
The Diagnosis and Treatment of Ectopic Gestation. By Harold Chapple, M.C.	418–421
Change of Address	421
Papers by Guy's Men	421
A New Form of Bacteriological Incubator	421
Muscular Atrophy. Clinical Lecture by Dr. Herbert French	422–426
The Lessons of a Failure in Interpretation	426–427
Guy's Hospital Physiological Society	427
Guy's Hospital Students' Club	427
London Bridge and the Borough in the Eighteenth Century (*continued*)	428–430
A Case of Immediate Torsion	430
Appointments	430
Gazette Special Pathologist	430
Henley's Hospital Poems	431
Correspondence	431
Sport	432

Passim.

THE Report of the Committee on the system prevailing in the London hospitals with regard to the admission of Out-Patients has done something to throw light upon a problem which year by year more urgently demands solution. In recent years the conception of the functions of a hospital has widened very considerably, and the number of out-patients treated has been doubled or trebled. This can be ascribed to several causes other than the increase of population. The development of costly special treatments has raised the standard of the medical attention which the hospital is expected to supply, and, at the same time, it has raised the financial level below which a person is deemed "necessitous" and a fit object of the hospital's generosity. The realisation of the harm that may be done if the less serious ailments are left untreated has resulted in the inclusion of a multitude of trivial cases. The abuse of privileges intended for the poor by the fairly well-to-do, and the great difficulty under the present system of discriminating between cases financially suitable and the reverse, are other factors contributing to the same result. The tendency of the present system is, therefore, a further multiplication of numbers.

How those unwieldy numbers are to be reduced is the question that the committee has set itself to solve. The unsuitable cases come under several headings. Firstly, there are those that are already under the care of charitable institutions. At present these are allowed to visit the hospitals pretty much as they think fit; the excursion is regarded as a pleasant break in the continuity of the day's work. Thousands, again, belong to the provident and non-provident dispensaries and yet avail themselves of the treatment offered by the general hospitals. There are others—of the female sex generally—who regard attendance at the hospital as a social function, the discussion of their ailments providing agreeable small talk. Not a few attend who will not or cannot act upon the advice they come to seek; they refuse to lie up though a cure demands it, and so obtain treatment better described as perpetual than continuous. A case recently came to our notice of a girl in the incipient stages of phthisis; she was informed in no vague terms that she must have a complete month's rest in bed, and see to it that her window was kept wide open. Some few weeks afterwards she was visited and found living in a room which combined bedroom, sitting-room, and kitchen in one. The one small window was screwed down and half boarded up. Certain hospitals, we believe, refuse to treat if their advice is

not followed. Another numerically important class consists of the workers at certain of the large factories where free medical attendance is given. At present they are not discouraged from coming to the hospitals. In suggesting these classes as suitable for exclusion it must be remembered that the committee are considering only continuous treatment, they do not advise refusal of diagnosis.

The more obvious merits of a reduction of numbers lie in the fuller attention that can be given to such cases as need and deserve treatment, but there are other advantages. The relations of the hospital with the general practitioner are open to the improvement which would be likely to accrue. At present there is some reluctance on the part of the private doctor to send up cases, for he finds they are freely treated at the hospital and lost to him in future. There should be, under the system suggested, no longer such unreadiness; a greatly increased number of patients would be sent up for diagnosis and referred back to the general practitioner when special treatment was not indicated. From the educational point of view this increase in the proportion of serious cases attending would be no slight advantage. It would further be better from the point of view of the clubs which find the competition of the hospital a serious obstacle to their undeniably valuable work. The patients themselves, moreover, would be relieved to some considerable degree of their chief cause of complaint—the wait before their cases are examined and treated. The first visit to the hospital must often mean a loss of four or six hours' work and the corresponding pay, and it may even be that this loss together with travelling expenses nullifies the advantage of free advice. But with numbers as they are it is unavoidable that the process should be lengthy, as patients have to be sorted out, ticketed, submitted in most cases to a preliminary examination, and, finally, have their prescriptions dispensed after they have seen the surgeon or physician. However efficient be the administrative machinery, attendance must at present be a question of hours rather than of minutes.

The committee recommend an extension of the practice already in vogue at certain hospitals where qualified officers select each day a limited number of the more serious cases, a due regard being paid in this selection to recommendations from general practitioners. The cases not so reserved will be naturally of a less serious nature and, therefore, more properly relegated to the private doctor. The trivial cases should be sent elsewhere untreated for two reasons: firstly, because the hospital is strained to the utmost to cope with the serious cases; and secondly, because the slighter ailments can obtain treatment from the private doctor at a cost which the patient can usually afford, unless he be utterly destitute, in which case he should apply for relief to the proper authorities. The extra labour involved by this process of discrimination would soon be made good by the decrease in the numbers of patients treated.

Co-operation among the hospitals is obviously essential for the proper working of such a scheme ; indeed, a coalition between hospitals, dispensaries, practitioners, and charitable organisations in general. There must, too, be an efficient inquiry agency. At present all inquiry is in the hands of the almoners, nor do the committee desire it to be put in other hands, but rather that the almoners should receive efficient help in their extremely difficult and complicated task. Each patient should have letters of recommendation, as to his financial condition from some appointed agency in his district, as to his need of advice from the club doctor or private doctor, as to his previous treatment, if necessary, from other hospitals. In certain cases assistance other than medical is required in order that the patient may receive permanent benefit; recommendations to the various charitable organisations would provide for his needs. The question is of immense importance, and whether or no the re-

commendations and suggestions of the committee are embodied in the new system, for a new system there most certainly will be before very long, there can be no shadow of doubt that in the co-operation of medical and charitable institutions lies the main hope of a more satisfactory state of affairs.

On Friday, October 4th, the Physical Society held its Annual Conversazione. Sir James Goodhart received the guests in the Library, and the assembly then proceeded to examine the various exhibits. Seldom has one such excellent opportunities for studying the modern miracles of scientific advancement in their actuality, and the secretaries of the Society are to be congratulated on providing such an infinite variety of displays. In the museum we were privileged in beholding through the lenses of perfect microscopes a series of bacteriological wonders, the most stirring of which was undoubtedly the living spirochæte. A magnificent array of surgical instruments and appliances, and of recent books, and a demonstration by Ash & Co. of lithographic and aerographic methods of printing were other striking features of this department. In the Physiological Laboratory were demonstrations of tuberculin methods, some interesting pathological brain specimens, a beautiful series of biological microscopic preparations, more instruments, and last, but by no means least, the original notes of a paper by Dr. Larkin on "Nephrotomy and excision of the kidney," read before the Physical Society on October 9th, 1869. A fine orchestra and first-class refreshments further contributed to the success of the evening. We should, however, like to offer two criticisms. The first is addressed to those who were not present. It is really deplorable that the annual opening meeting of the oldest medical society in London should be so poorly attended. Staff and students were on this occasion the chief defaulters. We cannot understand why an evening so full of social and scientific interest should be so neglected. Our second criticism is in regard to a point of organisation. It seems a pity that the meeting should remain throughout the evening scattered and diffused. Would it not be possible, at some period of the proceedings, for the Society to be gathered *en masse* to hear, we might suggest, a short address from the Hon. President, or a report from the secretaries on the doings of the society?

The following Entrance Scholarships and Prizes have been awarded:—

Senior Science Scholarship for University Students.—£50, Charles Putnam Symonds, New College, Oxford.

Junior Science Scholarships.—£120, Joseph Edouard Evariste de Robillard, Preliminary Science Class, Guy's Hospital; £60, Harold John Bensted, Birkbeck College, and Joseph Christopher Campbell Howe, Preliminary Science Class, Guy's Hospital (equal).

Entrance Scholarships in Arts.—£100, William Herbert Steavenson, Cheltenham College; £50, Felix Raoul Leblanc, Royal College, Mauritius; Certificate, Louis Gustave Philippe K/Vern.

The first meeting of the Debating Society will be held in the College Smoking Room on Thursday, October 17th. Dr. Fawcett will take the chair. The motion for the evening is "That in the opinion of this House the Surgeon is of more use to Society than the Physician." The subject is an old one, but is as full of possibilities as ever it has been. The Debating Society has of late been rather on a down grade; this year we hope to witness its return to health and energy, and with this consummation in view would urge on men, both new and old, the importance of attending the first and all ensuing debates.

We have the greatest pleasure in drawing the attention of our readers to the marriage of Dr. Hertz announced in the Marriage Column. We are sure he will have the sincere congratulations of the hospital.

J. A. R.
F. G. L. S.

Constructive Anatomy.

A Suggestion.

Of all subjects in the medical curriculum anatomy is probably the one which constitutes the greatest tax on time and memory. The reasons for this are obvious. In the first place, it is a very vast subject; in the second place, it deals solely and entirely with matters of fact, and consequently allows no scope for theorising and imagination; and, in the third place, in so far as it must necessarily be committed to the storehouse of the mind in picture form and not as a mere collection of tabulated facts, it demands a particular and specialised type of memorisation. In other words, anatomy, to be remembered, must be visualised.

Some people are endowed with much greater powers of visualisation than others, but few are so extensively endowed as to be enabled to retain for any length of time their dissecting room lore.

Obviously the best method to adopt in any attempt at perfecting one's memory with regard to a particular subject is to encourage the entrance of its constituents into the intellectual citadel by as many portals as possible. Hence, it is that, in committing verse to memory, we read it, write it, and say it aloud, and thus by stimulating our visual, graphic and auditory centres assist in the intensification of the resulting picture.

Similarly in anatomy, we dissect and read, and we may also write, question, draw, and recite in our endeavours to obtain a lasting portrait of the human frame in its multitudinous intricacies.

It goes without saying that of these processes dissection—seeing that it provides both visual and tactile stimuli—is educatively by far the most valuable. Yet, in one respect, it falls short of the ideal. That is to say, it is an entirely analytic process of investigation. Construction and adaptation of part to part, or synthetic methods, are still more effective for obtaining a proper knowledge of one's work.

But how, it may be asked, can such methods be applied to anatomy? They can, of course, only be applied very imperfectly, but they can, none the less, be applied, and to good purpose.

By means of modelling-clay it is possible to produce rough but sufficiently accurate imitations of any or all of the important structures of the body, and to arrange them in their proper relations to one another. We have ourselves tried the method, and have found it not only instructive and a far better aid to visualisation than other methods, but also actually fascinating as a pastime.

The best material to use is undoubtedly Harbutt's plasticine. It is cheap and clean, can be bought in many colours, and can be used again and again as it does not set hard. Personally we have only used it in revision work, but we feel sure that if its employment were combined with or made to succeed to dissection of a "part," it would prove quite invaluable. The abdomen and thorax lend themselves especially to plastic representation, but the limbs and head and neck, although offering greater difficulties, can undoubtedly be successfully modelled with a little care and patience. In the case of the head and neck the best course is to model the soft parts directly upon the bony skeleton.

It may be objected that the time taken over modelling detracts from the value of the process. In our experience it emphatically does not do so. We have made a complete model of the thorax and abdomen in the space of two or three hours, and at the end of that time have known the parts far more thoroughly than we should have known them at the end of a like period of laborious reading.

The following are some of the many advantages that accrue from modelling a part, as opposed to studying it with the aid of a dissection or a prepared model. In the first place, a much better idea of relations can be obtained. Diagrams of (shall we say) the duodenum and its relations may at times almost drive one to despair, for the simple reason that they can only be viewed in one plane at a time. In the process of modelling, however, organs may

be correctly adapted to their neighbouring structures, until we have in the resultant whole a picture of all the relations in every plane which can be understood and learnt almost at a glance. In the second place, a better idea can be obtained—especially by one's sculptural mistakes—of the relative sizes and of the shapes of various structures. In the third place, the actual handling and adaptation of the clay acts as a stimulating mnemonic. And fourthly, the finished model can be kept and referred to at any future time, and it will be found that a few minute's observation of one's own handicraft is far more valuable than an hour's reperusal of the chapter relating to the region.

In some of the American medical schools students are made to model the whole body before they can sit for their examination in anatomy, doubtlessly with excellent results.

We would suggest that dissection should always be completed before modelling is commenced, and would advise men to work in pairs. If one man reads and criticises while the other models, time will be found to pass quickly and beneficially, and an otherwise tedious study may actually become a pleasure. A combination of artistic and anatomic zeal should, with the aid of plasticine, produce a second Hunter.

J. A. R.
W. R. R.

Dental Society.

On Wednesday, October 9th, between fifty and sixty members of the Dental Society journeyed to Heston, Hounslow, to visit the laboratories of Messrs. Parke, Davis & Co., at the invitation of the firm. Parties were conducted over the buildings, and the elaborate system in use, by which all drugs and preparations are checked and analysed, was demonstrated. The numerous labour saving devices received much attention, especially one machine, which was estimated capable of turning out over one million tablets a day.

The dental preparations were inspected with much interest, including the Euthymol tooth paste, which has lately been subjected to some exhaustive tests to demonstrate its properties as a germicide.

An interesting lantern lecture, followed by tea, brought the visit to a close.

A Case of Retroflexion of the Uterus.

My excuse for reporting this case is mainly the comparative rarity of the condition in a nullipara and the symptoms it gave rise to, drawing one's attention off from the source of the mischief.

I was called one evening to see Mrs. W., aged 37 years. She has been married 1½ years, her periods being quite regular, no excess or diminution in the flow, and no particular pain. Last period about a fortnight before this illness. She complained of great pain in the abdomen and sickness. Her temperature was 101° and pulse 100. She put down the attack to some fish she had had for dinner. Upon examination the whole abdomen was very tender, especially the left side. No rigidity, and freely movable upon respiration. Vomit consisted of almost pure bile. Patient said there was frequency of micturition. She has always, more or less, suffered from constipation, and particularly so just now. I ordered an enema, which, by-the-way, she objected to, after I left that evening, a bismuth mixture, and hot applications. Next day she seemed a bit easier, but had a rough night and pain still bad, but sickness had ceased. Abdominal condition much the same. Gave her two glycerine suppositories, as she objected to the enema. Good result from the bowels, and seemed progressing the next two days and began to sit up for a while. However, the pain and sickness returned, in spite of careful dieting, etc. Remembering when in doubt make an R. E., I did so, and found the source of the trouble. I could only introduce my forefinger 1½ inches, as it was stopped by an exquisitely tender mass anteriorly. It was so hard that it might have been growth of the rectum, but the position, regular, and smooth outline of the uterine body could not be mistaken. Before attempting replacement I tried for a quarter of an hour to pass a catheter, but the position of the urethra, or, rather, where the urethra ought to have been, was so puckered and tender that I gave it up. I then tried pushing the body forward from the rectum, which was a very painful operation; but all at once it gave, and the patient immediately felt relief. Evidently the body was well gripped by the utero-sacral ligaments. Upon vaginal examination the cervix was pushing so far back that my finger could only reach the anterior surface of it. Bi-manually there was no body to be felt. The after treatment consisted of knee-elbow position several times a day, and I hope that we may be able to do without a pessary.

Upon questioning the patient she says that defæcation has been painful and troublesome for some months, and there has been a full feeling, as if she had not quite finished the act. She does not remember any sudden exertion or strain to account for it.

Did the vomiting from the questionable fish complete the retroflexion, or did the fish have nothing to do with it? I am inclined to take the latter view. A. D. C.

The Diagnosis and Treatment of Ectopic Gestation.

By HAROLD CHAPPLE, M.C.

The normal passage of the fertilised ovum down the Fallopian tube may be interfered with at any point between the Graafian follicle and the cavity of the uterus. The ovum may subsequently continue to develop at the site of its arrest, and to such a condition the term extra-uterine pregnancy or ectopic gestation is applied. As this constitutes one of the possible tragedies of pregnancy which, unless artificially relieved, is almost always disastrous to the child, and frequently fatal to the mother, a detailed knowledge of the subject becomes of the greatest importance.

While the theories with regard to this interference to the passage of the ovum and the subsequent pathology are of interest, it is to the diagnosis of this condition and its appropriate treatment that the greatest practical value is attached, and so we shall here consider only these two aspects.

For an intelligent understanding of the signs and symptoms on which the diagnosis is made, a knowledge of the anatomy of the region and the possible fates of the abnormally implanted ovum are essential. The Fallopian tube is a narrow canal of some four inches in length which runs in the upper border of the broad ligament. Its distal extremity is normally free, and the patent end of the tube is known as its abdominal ostium. The tube itself is divided for purposes of description into three portions —the ampullary, isthmial, and interstitial. The developing ovum may lodge in any of these portions, or the pregnancy may be primary in the ovary itself. Whilst the ovarian and interstitial types are rare, in the vast majority of cases the site of arrest is in the ampullary portion of this tube.

During the development of the ovum in the tube the uterus itself enlarges, and its endometrium undergoes a change that is indistinguishable from the decidual membrane of ordinary pregnancy. The mucous membrane of the tube itself does not appear to be similarly affected, at least, not to any marked degree, nor does its muscle hypertrophy in a manner at all comparable to that of the uterus. At first, then, the ovum continues to develop in a tube whose calibre rapidly becomes too small to contain it, and, at the same time, the chorionic villi tend to imbed themselves in and erode its walls. Having commenced a development under conditions so precarious it is not surprising that before long some very radical change ensues.

There are several rare events that may occur in connection with an extra-uterine pregnancy, and it will be sufficient here merely to mention them. The development of the fœtus may continue within the abdominal cavity and be followed by false labour and death of the fœtus which is subsequently retained as a lithopædion. I have recently operated on such a case in Queen, but it is a comparatively rare condition. The retained fœtus may become mummified or at a later date be discharged with suppuration. Extrusion of the ovum into the uterus is said to have taken place in the interstitial variety, and its development gone to term. Rupture into the general peritoneal cavity has been followed by continued growth of the fœtus, and there was recently such a case in Lydia under Mr. Symonds. Still, it should be clearly borne in mind that for all practical purposes the following possibilities lie in front of the abnormally implanted ovum, and one of them must inevitably take place.

1. Conversion into a tubal mole in which the ovum is destroyed in situ by hæmorrhage.

2. Tubal abortion, in which the ovum is detached and expelled through the patent abdominal ostium.

3. Rupture into the general peritoneal cavity through an artificial opening in the wall of the gestation sac.

4. Rupture between the layers of the broad ligament in which this opening occurs in the part of the tube uncovered by peritoneum.

Of these, the first two will include the majority of cases, and instances of the fourth are rare.

It is, perhaps, simplest to consider the signs and symptoms of this condition under four headings:—

1. History of amenorrhœa,
2. Abdominal pain,
3. Vaginal hæmorrhage,
4. Presence of a pelvic tumour.

With a view to representing accurately the experience at Guy's, I have looked through the Hospital Reports, and find that as regards the question of amenorrhœa the cases fall into three groups:— (*a*) Those in which there is no history of amenorrhœa. In these some radical interruption to the pregnancy has taken place before the normal time of onset of the next menstrual period. The shortest history of which I am aware was given in a case under Mr. Targett in which rupture took place eleven days after a definite single coitus. (*b*) Those in which, again, there is no amenorrhœa, but the next menstrual period, although regular in time, is increased in duration and amount. (*c*) Those in which there is one month's amenorrhœa, and this is followed by the onset of irregular bleeding a short time afterwards.

It is unusual for the onset of hæmorrhage to be delayed beyond the eighth week, and this is not surprising when we consider the size of the tube in which the ovum is developing.

With regard to abdominal pain, again the histories vary. A typical case of rupture or abortion in which the hæmorrhage is severe gives a story of a sudden

attack following some exertion or manipulation. It may be agonising, and is commonly followed by collapse. In the cases of mole formation, or tubal abortion in which the hæmorrhage is slight, the history is usually one of several attacks of abdominal pain. The pain does not last very long, nor is it so intense or dramatic as in a case of rupture. In those cases in which the pregnancy is progressing, and in the cases of so-called "leaking mole," the pain is due to the escape of blood into the peritoneal cavity either through a small rent in the wall of the ovum or through the patent abdominal ostium. It is interesting to record here that in several cases the patient has complained of pain in the epigastrium.

The vaginal hæmorrhage is not usually great in amount; it is typically a brownish-red discharge which follows the pain after an interval of time, and probably comes in most cases from the site of the decidua. Quite frequently a decidual cast of the uterus is passed per vaginam within a few days of the commencement of symptoms. It is usually expelled in several pieces, but may be a complete triangular cast. This is considered a characteristic sign of extra-uterine pregnancy, but as there is no evidence of its being passed in so many cases, its absence is not equally convincing as a negative proof.

The pelvic tumour is generally situated in the postero-lateral aspect of the pelvis behind the broad ligament, and may displace the uterus forwards or to one or other side of the pelvis. If there be a mole formation or tubal abortion there is usually a quantity of blood clot palpable in the pouch of Douglas, and this sometimes is sufficient to mask the unilateral character of the pelvic tumour. It is as well to remember that the lump is not necessarily situated posteriorly, and in a case which I recently explored in Queen it was found to lie anteriorly and to the right of the uterus.

The tumour may be very tender, but is not necessarily so; it is usually somewhat fixed, and its wall yields to the gentle pressure of the examining finger imparting the sensation of a collection of fluid surrounded by partly organised blood clot. In cases of rupture it may be quite impossible to discover any pelvic lump, but when an extensive hæmorrhage has taken place a fulness in the lateral fornices and pouch of Douglas is found to be present.

In the discussion of the diagnosis it is clearly impossible to give a clinical description common to all cases, as they differ widely according to the different fates they have undergone. It will be best, therefore, to classify them in the following groups, and most cases will fall into one or other of them:—

1. Those in which the ectopic has undergone no interruption and is found accidentally on pelvic examination. This is, unfortunately, a small group, as in all probability the patient will not complain of any untoward symptom. Before any secondary change takes place the patient presents the signs and symptoms of a normal early pregnancy, and is quite unaware of the gravity of her condition. A multipara may volunteer the statement that her "feelings" are not the same as on previous occasions.

2. Those in which the patient comes complaining of abnormal vaginal hæmorrhage and attacks of abdominal pain. *The conversion of the developing ovum* into a tubal mole or the occurrence of a tubal abortion which is not associated with marked internal hæmorrhage is usually accompanied by these symptoms. It is this group of cases which presents the greatest difficulty in diagnosis, particularly when a mole formation has taken place without the escape of blood into the peritoneum. The condition has now to be diagnosed from other causes which give rise to a lateral pelvic lump associated with uterine hæmorrhage. Of these, much the greatest difficulty is presented by the differential diagnosis from a pelvic inflammatory mass. This is frequently associated with irregular menstruation, the presence of a brownish-red vaginal discharge, repeated attacks of abdominal pain, with pyrexia, and a tender postero-lateral pelvic tumour. It is commonly stated that the differential diagnosis in favour of an ectopic can be made by the absence of a rise of temperature and the absence of tenderness of the pelvic tumour. My experience has been that these points are of very little value, as quite frequently an ectopic is sufficiently tender to make pelvic examination difficult, and in the second case quoted above the temperature rose to 103°, probably owing to the absorption of serum from the associated blood free in the peritoneal cavity.

More assistance can be obtained from—

(*a*) The unilateral nature of the tumour. It should be remembered, however, that quite frequently an inflammatory process tends to affect one side much more than the other, and in a case on which I operated a short time ago I found a suppurative salpingitis which was absolutely unilateral.

(*b*) The absence of previous attacks and no recent source of infection.

(*c*) The fact that the irregularity of menstruation is a recent occurrence.

(*d*) The passage of a decidual cast.

(*e*) The increase in size of the tumour, associated with recurrent attacks of abdominal pain and vaginal hæmorrhage while under observation and treatment.

It will be often necessary to make an exploratory puncture through the posterior fornix before a certain diagnosis can be made.

3. Those cases in which there has been a sudden onset of acute abdominal pain followed by collapse and the signs of profuse intra-peritoneal bleeding. This group embraces the cases of rupture and tubal abortion in which bleeding is profuse. If the collapse becomes more profound and the pulse more rapid, the condition is almost certainly that of rupture. If,

on the other hand, the condition improves, one is probably dealing with a tubal abortion, and the diagnosis will be verified by the formation later of a pelvic hæmatocele. In a typical case of rupture the sudden acute abdominal pain in the early weeks of pregnancy followed by progressive collapse, a rising pulse, a fulness in Douglas's pouch, and the presence of free fluid in the abdomen, and later the signs of marked anæmia from the intra-peritoneal bleeding, form a group that makes the diagnosis, as a rule, a comparatively simple matter.

Here it is worth mentioning that in several cases which I have seen, the presence of a large quantity of free blood in the peritoneum was not attended with any abdominal rigidity or lack of movement on respiration.

4. The group of rare cases in which the child has survived rupture, and is now developing in the peritoneal cavity. In these cases the child is said to be felt more easily than usual, and the uterus is found to be much smaller than it should be for the state of the pregnancy and is displaced by the fœtal sac. It should be remembered that in women with thin abdominal walls the fœtus is often felt with remarkable ease.

5 Again, a rare group in which intra-uterine and extra-uterine pregnancies are associated. There has recently been such a case in Queen under Mr. Targett. As is usually the case, the diagnosis was not made before the extra-uterine pregnancy had ruptured.

6. Those very rare cases in which the extra-uterine pregnancy is not interrupted, but goes on to term or even past it. In these it is said a diagnosis can be made by the extreme ease with which the fœtus is palpated and the absence of the tense round ligaments which in intra-uterine pregnancies can be easily made out on the lateral aspects of the uterus. At term a history of false labour is given, and a gradual decrease in size of the abdomen is noticed.

As regards the treatment that will, of course, vary with the condition present. Should the gestation be as yet uninterrupted it is always wisest to remove the entire sac at once. Though it is quite true that the majority of cases end in the formation of a mole, it is just as impossible to predict the future of an ectopic as it is of an acute appendix, and each calls for immediate operation. There is a very great probability that rupture may occur, and this is a condition that frequently destroys life with dramatic suddenness. According to Schauta the mortality of extra-uterine pregnancy if uninterfered with is 68·8 per cent. The operation for an unruptured ectopic, which consists of removing the affected tube, is a very simple and safe one, whereas, later, when complications have ensued, it may be attended with considerable difficulty.

Again, no one will doubt the wisdom of operative interference when a diagnosis of ruptured ectopic, associated with profuse internal hæmorrhage, has occurred. It will, in these cases, often be wise to wait if possible a few hours for the patient to recover from the collapse attendant on the rupture, but if the hæmorrhage is proceeding such a delay will not be feasible. In combating the shock and loss of blood saline infusions are invaluable.

Opposite opinions are expressed as to the wisest course to adopt in the treatment of the cases in which mole formation or tubal abortion, associated with the formation of a pelvic hæmatocele, has taken place and the acute symptoms have subsided. In these a palliative treatment, which consists of rest in bed and careful watching, is frequently adopted, and interference only considered to be necessary when the hæmatocele steadily increases in size or presents symptoms of suppuration. In such cases the tumour should be attacked through the posterior fornix, and its cavity packed with gauze.

The great objections to the palliative treatment are that it necessitates a lengthy and tedious convalescence and a very uncertain future. It is not by any means unusual for operative interference to be called for after weeks of anxious watching, and we have recently had several such cases in Queen. In this way much valuable time is lost, and the operative difficulties are increased owing to the firm adhesions of the sac of the hæmatocele to the surrounding bowel and pelvic walls. These adhesions may subsequently give rise to much trouble frequently producing marked pain by partially obstructing the bowel or picking up the ovary, and the only method of relief is again by operation.

Again a pelvic hæmatocele absorbs very slowly, and the collection of blood forms an excellent culture medium for organisms which may reach it from the neighbouring bowel. There is thus always a possibility of suppuration supervening with its attendant sequelæ.

A much more rapid and certain cure is obtained by removal of the affected tube and clearing out the pouch of Douglas through an abdominal incision. The corresponding ovary should always be left if possible.

In the rarer cases in which the extra-uterine pregnancy has continued into the later months the treatment differs according to whether the fœtus is alive or dead. In the former case an active placental circulation has to be dealt with, and any attempt at its removal is attended with a grave risk of producing profuse hæmorrhage. In the latter case the placental sinuses will be closed with thrombi and there will be no risk in detaching the placenta. In this connection it is well to remember that the placental sinuses will be closed with thrombi and after the death of the child, so unless the symptoms be urgent it is advisable to wait a few weeks to be certain that the organisation of the thrombi is complete.

If the child be living, the mother is constantly exposed to the risk of sudden acute hæmorrhage, and if the pregnancy be left to term false labour may supervene and the child's life be lost. It is always wisest, therefore, to interfere. The abdomen should be opened and the fœtus delivered and the cord tied. If the sac be still unruptured this should be opened and the fœtus removed. Then the sac should be inspected to determine whether it be possible or not to completely remove it. If the placenta be situated on the tubal wall, uterus, or broad ligament the blood supply may be controlled by ligature of the ovarian and uterine arteries and by dealing with any other bleeding points by passing deep sutures into the surrounding tissues.

If the placenta be attached over the intestines or large blood vessels it will be better to simply tie the cord, and having sutured the sac wall to the incision, to pack the placental area with gauze and allow the placenta to separate piecemeal. While this process is going on one should be fully alive to the dangers of a possible infection or secondary hæmorrhage from the breaking down of the thrombi.

Change of Address.

Fleet-Surgeon W. J. Bearblock, R.N., to R.N. College, Greenwich.

W. W. Cook, M.R.C.S., L.R.C.P., to "The Abbey," St. Faith's, Norwich.

W. E. Fox, M.B., B.S., from Guy's Hospital to Waters Meet, Ilfracombe.

M. K. Nelson, M.R.C.S., L.R.C.P., from 5, Redesdale Street, Chelsea, to 12, Belsize Avenue, Hampstead, N.W.

H. M. Page, F.R.C.S., D.P.H., from 14, Grenville Place, Kensington, to 53, Welbeck Street, W. (Teleph. 5689 Mayfair.)

E. P. Poulton, M.B., B.Ch., M.R.C.P., from Ebendorfer Strasse, Vienna, to 21, Belmont Park, Blackheath, S.E.

C. H. Rippmann, M.D., M.R.C.P., from Guy's Hospital to Queen Charlotte's Hospital, Marylebone Road. (Teleph. 29 Paddington.)

Phillip Scott, L.D.S. Eng., The Mall, Wanstead. Additional address, 42, Devonshire Street, W.

Papers by Guy's Men.

R. O. Moon, M.D., F.R.C.P.: Clinical Aspects of Graves' Disease.—*Practitioner*, October, 1912.

W. H. Trethowan, M.B., B.S.: Acute Anterior Poliomyelitis: An Account of Recent Important Experimental and Epidemiological Investigations in Sweden. *Lancet*, October 5th, 1912.

A New Form of Bacteriological Incubator.

The incubation of bacteria is usually only accomplished by the use of costly, unwieldy and elaborate apparatus, and thus the average medical man looks upon the cultivation of bacteria as too much trouble and expense. It seems desirable, therefore, that a cheap, effective and portable incubator should be brought before the notice of bacteriologists generally. Such an one is to be found in the vacuum flask which will retain the heat of a liquid placed within it for at least twenty hours. The ordinary Thermos flask is a convenient size and has been very successfully used by the author. The method of using the flask is simplicity itself: the metal top is unscrewed and the cork removed. The cork is now neatly bored and the culture tube passed through the hole to the required depth. It is essential that the cork should tightly grasp the tube, otherwise much heat will be lost. Water at the required temperature is now placed in the flask and the temperature again taken, hotter water being introduced until the temperature is correct. The flask should be practically filled with the water and then the cork with culture tube, indiarubber cap, etc., inserted tightly into the neck. The metal top is screwed down and the flask left for a period not exceeding twenty-four hours. On reopening, the temperature of the water will be found about 2° C. lower than when first placed in the flask, but this will not be sufficient to hinder growth to any appreciable extent. Thus from a throat swab diphtheria colonies were easily identified in twelve hours, and were large in twenty-four hours. If a longer period of incubation is necessary the cooled water is poured away and warmer water again introduced. The time taken in effecting the change need not be more than one minute if the water is at the required temperature and is ready to be poured into the flask. A heat-saving improvement is effected by using an indiarubber bung instead of the cork supplied with the flask. In conclusion it may be pointed out that the use of this incubator should be of great advantage in such countries as India and China, not only because of its portability, but also because the culture medium is kept at a steady temperature, not increasing but tending to decrease, for a vacuum flask keeps liquid cold as well as hot, thus nutrient gelatine may be kept stiff by introduction into a cool Thermos flask almost indefinitely By very slight and obvious alteration the flask may be made suitable for the growth of anærobic organisms in a stream of hydrogen or other gas.

C. J. DICKENSON GAIR,
Member of the Society of Chemical Industry, London.

Sept. 16th, 1912.

Muscular Atrophy.

A CLINICAL LECTURE BY Dr. HERBERT FRENCH.

Wasting of the muscles of some part of the body, especially of the hands, arms, or legs, is sometimes the most prominent indication of disease for which patients seek advice. In order to make a correct diagnosis of the cause of such atrophy, the mode of onset, the age at which it was first noticed, the family history, the associated symptoms, and the signs obtained as a result of a thorough physical examination, must be carefully weighed and considered.

The nutrition of the muscles is governed by the motor nerve cells in the anterior cornua, as long as the corresponding anterior nerve roots or motor nerves are intact. The motor nerve tracts from the cerebral cortex to the muscles may be divided into two main portions—upper and lower. A transverse line, drawn immediately above the anterior cornual cell, separates the upper neurone from the lower neurone. Lesions of any part of the upper segment or neurone, viz., the cortical cells, the corona radiata, the genu and anterior two thirds of the posterior limb of the internal capsule, the crus, pons, medulla or pyramidal tracts of the cord will give rise to loss of power, rigidity, and exaggerated reflexes, but to no muscular atrophy, except from disuse, and to no reaction of degeneration. Lesions of any part of the lower segment or neurone, viz., the anterior cornual cells, the anterior nerve roots, the motor nerves, or their endings in the muscles will occasion loss of power, loss of reflex, atrophy of muscles, and reaction of degeneration, except only in the case of primary lesions of the muscles, which will not cause complete reaction of degeneration.

The following is a list of the causes of muscular atrophy:—

A. *Disuse.*

B. *Overuse.*

C. *Lesions of the anterior cornua:—*
- Acute anterior poliomyelitis.
- Subacute and chronic poliomyelitis.
- Progressive muscular atrophy.
- Amyotrophic lateral sclerosis.
- Myelitis.
- Hæmato-myelia.
- Syringomyelia.
- Compression of the spinal cord.

D. *Lesions of the anterior nerve roots, viz.:—*
- Compression as a result of spinal caries.
- Compression by malignant growths.
- Compression by aneurysm of the aorta.
- Compression as a result of pachymeningitis.

E. *Lesions of the motor nerves:—*
- Localised neuritis.
- Multiple neuritis.
- Neuromata.

F. *Neuro-muscular:—*
- Tooth's peroneal type.

G. *Lesions of the muscles (primary muscular dystrophies):—*
- Pseudohypertrophic muscular paralysis.
- Idiopathic muscular atrophy:
  - (*a*) Erb's type.
  - (*b*) Landouzy Dejerine type.
  - (*c*) Other types.

H. *Arthritic muscular atrophy.*

Atrophy from Disuse of Muscles.

A certain amount of muscular atrophy may result from disuse, and it may be associated with paralytic conditions due to lesions of the pyramidal fibres above the anterior cornual cells, *e.g.*, of the cortical motor areas, corona radiata, anterior two-thirds of the posterior limb of the internal capsule, crus, pons varolii, medulla oblongata or the pyramidal tracts of the cord. The muscular atrophy which is the result of lesions of any of the above-mentioned parts is never accompanied by reaction of degeneration, and it is usually associated with increased, rather than diminished or abolished, reflexes.

Muscles may atrophy in wasting diseases, such as phthisis and malignant disease, and in the course of some febrile illness, such as typhoid fever. This is partly as a result of disuse, but also largely the result of a generalised decrease in bulk. Unaltered reflexes, and no change in electrical excitability to the interrupted and the continuous currents, would exclude the possibility of the atrophy being due to lesions of the anterior cornua, anterior nerve roots or nerves.

Acute Anterior Poliomyelitis (Acute Atrophic Paralysis or Infantile Paralysis).

This is an acute disease, characterised by its sudden onset with pyrexia, loss of power, and rapid atrophy of different muscles in different cases. The lesion which produces these symptoms is an acute inflammation of the anterior cornua of the cervical or lumbar enlargement, probably microbial in origin, and sometimes epidemic. In the acute stage a section of the spinal cord shows engorgement of the blood vessels in the grey matter, extravasation of blood, and small celled infiltration, especially around the large nerve cells. A spinal cord examined some years after the commencement of the illness shows a diminution of the grey matter of the affected half from atrophy of the anterior cornua, and the large motor cells are found to be absent or very diminished in number. The muscular atrophy is therefore due to a destruction of the nerve cells in the anterior cornua, with a resulting degeneration of the corresponding motor nerve-fibres.

The onset is usually very acute, and in some cases it may be described as sudden. The disease is commonest in children, but it may affect adults. It is accompanied by marked constitutional disturbances such as pyrexia, vomiting, restlessness, headache, and occasionally by convulsions. These symptoms may last for two or three

days, but in some cases they are absent altogether. Three-fifths of the cases which occur in early life are under three years of age. It rarely attacks infants under six months. Boys and girls suffer equally. It occurs much more frequently in summer than in winter. Epidemics of this disease have been described in America, and in Norway. Over exertion, exposure to cold, and injuries, appear to be exciting causes. Severe pain is often a well marked initial symptom, more particularly in adults and older children. It is often misleading, even going so far sometimes as to suggest the erroneous diagnosis of acute rheumatism. Some years ago in a medical out-patient department, one of the students asked the physician if there was not often a difficulty in distinguishing between infantile paralysis in the early stages, and acute rheumatism. The reply was, that there should be no such difficulty. The next case, however, proved to be a child acutely ill with pyrexia, and pain in the legs, who was admitted to the wards with the diagnosis ? acute rheumatism ? infantile paralysis. A few days afterwards there was no further doubt about the diagnosis, for loss of power had supervened, and muscular atrophy succeeded this; it was clearly a case of infantile paralysis. A few cases commence less acutely, the loss of power taking two or three weeks to develop.

The distribution of the muscular atrophy is extremely variable; both legs, both arms, one leg, one arm, one leg and one arm on the same or opposite sides, or a single muscle or group of muscles may be affected. The left leg, however, is implicated much more frequently than other parts. It is very rare to find the arm and leg on the same side involved. The extensor muscles are more frequently affected than the flexors. A very characteristic feature of this disease is the tendency for the paralysis to clear up in certain parts and to remain in others, *e.g.*, at the commencement both legs and one arm may be affected, but, finally, the loss of power and atrophy may be confined to the lower part of one leg only. The paralysis is, therefore, not progressive, but, on the contrary, retrogressive.

"One general fact is, unfortunately, true of almost all cases, namely, that the palsy scarcely ever passes away entirely, and that where wasting occurs wasting remains" (Gowers). Of the muscles of the upper extremity the deltoid is most frequently implicated. The muscles supplied by the cranial nerves and the sphincters are usually said to escape, but there is a suspicion in some minds that some cases of squint arising after a simple fever in childhood may really be due to this cause.

Very exceptionally, when the lumbar region is involved, there may be retention and incontinence of urine and slight loss of sensation.

In a well-marked case of this disease in which the left leg is affected the following signs may be present:—

Motor.—There may be considerable loss of power in the left leg, and the child may not be able to walk unless supported. There is no rigidity, but, on the other hand, there may be undue flaccidity of the joints.

Sensory.—There is no impairment of sensation to touch, pain, or temperature in the great majority of cases, at any rate after the initial pains in the parts have passed off.

Reflexes.—Both the plantar reflex and the knee-jerk may be absent.

Trophic.—The left leg is much smaller than the right, and may become considerably shorter as a result of retardation of the growth of the bones. The muscles are small, wasted, flabby, and flaccid. The limb may be much colder than the other. Bedsores are practically unknown. Various deformities, such as talipes equino-varus, occur as a result of the atrophy of the dorsi-flexors of the foot.

Electrical reactions.—The electrical reactions will depend a good deal on the time which has elapsed since the onset of the disease. As early as the end of the first week the muscles may not respond to stimulation of the interrupted current and yet may react more readily than usual to the continuous current, A.C.C. being equal to or greater than K.C.C. At the end of two years, if the paralysis is complete, the muscles will not respond to either the interrupted or the continuous current. Cases which have been regularly treated by electrical means may react until the end of the third or fourth year. It is customary to obtain the typical reaction of degeneration a short time after the commencement of the disease, and for it to persist as long as degenerating muscle fibres are still present in the affected muscles.

Bladder and Rectum.—The functions of the bladder and rectum are unimpaired. Death very rarely occurs in the acute stage, and when it takes place in later years it is the result of some other disease. There is some evidence, however, to show that some cases of Landry's acute ascending paralysis, which kills by paralysing the intercostal muscles and diaphragm are, really but a variety of acute poliomyelitis.

Gowers divides the malady into four stages:—

1. An initial stage of paralysis accompanied by fever lasting from a few hours to a week or more.
2. A stationary period lasting from a week to a month.
3. A stage of retrogression during which the paralysis passes away, except in the parts where the wasting occurs, the period lasting from one to six months.
4. A chronic stage during which the atrophy continues and slight impairment occurs, but deformities develop.

Except in the acute stage the diagnosis rarely presents any serious difficulty. The sudden onset with vomiting and pyrexia, and occasionally convulsions, may lead to the diagnosis of an acute specific fever, whereas the pain in the limbs in some cases may cause acute rheumatism to be suspected. A careful examination of the child would in all probability lead to the discovery of some paralysis and an absence of swelling or pain in the joints. The absence of sensory changes excludes myelitis. The most distinctive features of acute anterior poliomyelitis are therefore: the acute onset, the loss of power, the absence of permanent sensory changes, the loss of the

reflexes, the atrophy of the muscles, the reaction of degeneration, and the absence of bladder and rectum troubles. The acute onset and the early age at which it occurs distinguishes it from progressive muscular atrophy, which always has a slow and insidious onset and very rarely attacks anyone under the age of twenty-five.

Subacute and Chronic Poliomyelitis.

These forms of poliomyelitis differ in several respects from acute anterior poliomyelitis.

1. The onset, as the terms "subacute" and "chronic" imply, is less rapid. Gowers defines subacute as including those cases in which it takes from ten to thirty days for the disease to develop and chronic from one to six months.

2. Adults are more frequently affected than children.

3. The legs are first paralysed, atrophy then follows, and the arms may or may not be affected later.

4. The atrophy is progressive rather than retrogressive.

5. The changes in the electrical reactions are not so well marked.

Two types of the disease can be distinguished :—

A. Cases which differ from acute anterior poliomyelitis only in the less rapid mode of onset (subacute form), similar initial symptoms, and a wide distribution of the paralysis being followed by partial recovery.

B. Cases which are more chronic and progressive, some of which, as suggested by Gowers, might be better described as examples of subacute progressive muscular atrophy. The paralysis and atrophy may progress until death occurs at the end of a year or two, whereas in other cases the paralysis may progress for some months, then remain stationary, and finally improve gradually to a certain extent. Cold, injury to the back, intemperance, and sexual excesses have been regarded as contributory causes of the latter form, but very probably a good many cases are really syphilitic. Now that the Wassermann reaction is available in testing this point, a good deal of new light will probably be thrown upon the connection between syphilis and other diseases of the central nervous system besides tabes dorsalis and general paralysis of the insane.

The chief signs of the disease are :—

Motor.—Loss of power in both legs, one being, as a rule, more paralysed than the other. The arms may also be involved, but they are not usually affected until some time after the legs.

Sensory.—There is no impairment of any form of sensation.

Reflexes.—The knee-jerks are usually absent or much diminished. The plantar reflex may or may not be absent, according to the extent of the lesion.

Trophic.—Atrophy of the muscles of the legs, following the paralysis, gradually progresses for a month or several months before the maximum is attained, then remains stationary for a time, and is finally followed by a varying amount of recovery.

Electrical.—The changes in the electrical reactions are less marked than in the acute form, and they are sometimes even absent.

Bladder and Rectum.—The functions of the bladder and rectum are not impaired.

Special senses.—None of the special senses are affected.

This disease has a much less rapid onset than acute anterior poliomyelitis, but is more acute than progressive muscular atrophy. The legs are more frequently affected than the arms, whereas in progressive muscular atrophy the hands and arms are first involved.

The greatest care must be exercised in distinguishing it from multiple neuritis; no doubt some of the cases which have been described as chronic poliomyelitis have been in reality multiple neuritis. It resembles neuritis in the slow progress of the atrophy and the tendency to gradual improvement and recovery, and the absence of bladder and rectum disturbances. In anterior cornual cell disease the distribution of the paralysis and atrophy is much more irregular than it is in peripheral neuritis, in which disease it is generally symmetrical. Tenderness of the nerve trunks and loss of sensation would also point to neuritis. From transverse myelitis involving the lumbar enlargement of the cord it is distinguished by the absence of sensory changes and impairment of the functions of the bladder and rectum.

Progressive Muscular Atrophy.

This is a chronic disease characterised by atrophy and weakness of the muscles of the hands. The lesion is a chronic degeneration of the anterior cornua of the lower cervical part of the spinal cord with secondary degeneration of the corresponding anterior nerve roots and motor fibres of the nerves. The muscles are diminished in size and pale. The spinal cord in the affected region is not decreased in size as in acute anterior poliomyelitis, nor is there any alteration in the size or shape of the anterior cornua, which, however, are paler than normal. If examined microscopically they are found to contain very few motor nerve cells, if any, and to have an increase of neuroglial tissue. Gowers states that in this disease he has always found changes in the crossed pyramidal tracts as well as in the anterior cornua, so that he does not draw any distinction between it and amyotrophic lateral sclerosis.

It is commoner in males than in females, and very rarely commences before the age of 25. The onset is gradual and insidious, the first noticeable change being a slow wasting of the thenar, hypothenar, and interossei muscles. Osler states that irregular pains may precede the wasting. In a well-marked case of this disease the following signs may be found :—

Motor.—Loss of power in both hands, usually more in one than the other, according to the degree of atrophy which has occurred; also weakness of the forearms and arms. The legs are rarely affected. Fibrillary contractions of the affected muscles, especially the thenar and hypothenar, is a very characteristic but not patho-

gnomonic sign. These local twitchings of the muscles may occur spontaneously or be produced by tapping the skin situated over the muscles.

Sensory.—Sensation is unimpaired.

Reflexes.—Neither wrist-jerks nor elbow-jerks can be elicited after an initial period during which they may be exaggerated. The knee-jerks are not lost unless the atrophy has spread to the legs.

Trophic.—Wasting is most marked in the thenar, hypothenar, and interossei muscles, so that the palm of the hand has a very flat appearance. As a result of the wasting of the interossei unresisted action of the extensors leads to over-extension of the first phalanges on the metacarpal bones and flexion of the middle and terminal phalanges which produces the curious claw-like deformity described by Duchenne as the *main-en-griffe*. The flexors of the forearm, the deltoid, biceps, triceps, and lower two-thirds of the trapezii may also be wasted.

Electrical.—The electrical reactions are altered in proportion to the extent of the muscular atrophy. As a rule, excitability to stimuli from both the interrupted and continuous currents is diminished about equally, or there may be a partial reaction of degeneration, viz., diminution of excitability to the interrupted current and increased excitability to continuous current stimuli, the resulting contractions being slow, and A.C.C. equal to, or nearly equal to, K.C.C. In advanced stages the muscles may not react to either current.

Bladder and Rectum.—The bladder and rectum functions are unimpaired.

Special senses.—None of the special senses are affected unless the degenerative power spreads to the medulla, when paralysis of the pharynx and larynx follows; indeed, there is a close relationship between progressive muscular atrophy and bulbar paralysis. Either may appear first and develop into the other.

The course of the disease may be very slow, death occurring from pneumonia, phthisis, etc., or from progressive bulbar paralysis if the degenerative process spreads to the medulla.

The gradual onset, progressive wasting of the thenar, hypothenar, interossei and lumbricales muscles, fibrillary tremors, without pain or other sensory disturbance, and the altered electrical reactions in a patient over 25 years of age would point, without much doubt, to progressive muscular atrophy.

The association of loss of the abdominal reflexes, loss of power, and spasticity of the legs, exaggerated knee jerks, ankle clonus, and extensor plantar responses with the above-mentioned symptoms of progressive muscular atrophy, is characteristic of amyotrophic lateral sclerosis.

The association of loss of sensation to pain, heat, and cold, tactile sensation being normal, with the above-mentioned symptoms of progressive muscular atrophy would point to syringomyelia.

Acute, subacute, and chronic anterior poliomyelitis may be distinguished by the history.

When the atrophy is due to compression of the nerve roots, there is usually a good deal of pain, and sensory disturbance.

In lead neuritis the extensors of the wrist are first affected, whereas in progressive muscular atrophy, after the wasting of the muscles of the hands, the flexors of the wrist are involved; and further, in plumbism the patients are usually anæmic, and have a blue line upon their gums.

Idiopathic muscular atrophy usually commences at an earlier age, the muscles of the hands are rarely first involved; other members of the family are, as a rule, similarly affected.

Amyotrophic Lateral Sclerosis.

This is a chronic disease due to the combined lesions of progressive muscular atrophy and primary spastic paraplegia, *i.e.*, a degeneration of the anterior cornua in the lower cervical region, and sclerosis of the pyramidal tracts throughout the spinal cord and medulla.

It rarely affects persons under 25 years of age, and according to Charcot is commoner in women than in men.

The onset is gradual, the earliest symptoms being weakness and wasting of the muscles of the hands and arms.

The chief signs af this disease are:—

Motor.—Weakness of the hands and arms, and often active rigidity of the wasted muscles. The legs also become weak and rigid. Fibrillary contractions of the atrophied muscles are also common.

Sensory.—There are no sensory disturbances of any kind.

Reflexes.—At first both wrist and elbow jerks may be elicited, but as the atrophy progresses they become diminished, and later cannot be elicited. The knee jerks are exaggerated, and ankle clonus and extensor plantar responses can be obtained.

Trophic.—Wasting commences in the muscles of the hands, but soon spreads to the arms. Later, in the course of the disease, atrophy of the muscles of the legs may occur, but it is by no means a constant change.

Electrical.—Excitability to both the interrupted, and continuous currents is decreased, and when the atrophy is well marked, reaction of degeneration may be present.

Bladder and Rectum.—The bladder and rectum functions are not impaired, unless quite late in the disease, when the lateral sclerosis has become extreme.

Special senses.—The degenerative changes in the anterior cornua may gradually extend upwards until the tongue, lips, and palate become paralysed and atrophied, so that speech and deglutition are affected; this may go on until the typical labio-glosso-pharyngo-laryngeal affection of bulbar paralysis develops. Death may occur as a result of the degenerative process thus spreading upwards to the bulb and the consequent development of progressive bulbar paralysis, or from some intercurrent disease, such as pneumonia, phthisis, bronchitis, etc.

The association of atrophy of the muscles of the hands and arms with weakness and rigidity of the legs, exaggerated knee-jerks, ankle-clonus, or extensor plantar responses, and no sensory disturbances, would point to amyotrophic lateral sclerosis and distinguish it from syringomyelia, in which disease the characteristic sensory symptoms would be present, viz., loss of sensation to pain, heat and cold, or perverted sensations, heat being felt as cold, or vice versa, whilst ordinary tactile sensations remain normal.

Myelitis affecting the lower cervical region would lead to atrophy of the muscles of the hands and arms, weakness and rigidity of the legs, and exaggerated reflexes, but would be distinguished from amyotrophic lateral sclerosis by the acute or subacute onset, the anæsthesia below the level of the lesion, the greater weakness of the legs, and the impairment of the bladder and rectum functions probably in the form of involuntary passage of urine and fæces.

(*To be continued.*)

The Lessons of a Failure in Interpretation.

This case is related for the benefit of others with a similar condition, and it is suitable for the Guy's Hospital Gazette as the two chief actors therein with the exception of the writer and those mentioned by name were not Guy's men.

A baby, æt. four months, was noticed on the mother's return to have occasionally, when awake, a harsh inspiratory stridor. (There had been difficulty over its food as it had had some digestive upsets, *e.g.*, green motions and loss of weight, but at the time it was doing well on bottles, the breast milk having been insufficient.) The nurse knew nothing about the onset of the stridor, but she was under notice at the time. Five days later I saw the child and noted that it was not distressed but had some sucking-in on the deeper noisy inspirations. No temperature. I was inclined to suspect a post-pharyngeal, but nothing was found. A few days later there was a definite statement that he might have swallowed a farthing, an elder child when questioned said he had been given it, but neither parents nor I at that time believed that it was the case. The child was taken to Dr. Still who noted a faulty diet but did not feel sure as to the nature or cause of the stridor, and discussed the possibility of a laryngeal papilloma, so a throat surgeon was called in.

It was now discovered that an abnormal appetite had arisen, and that certainly far too great quantities of milk were being given.

The throat surgeon diagnosed *unhesitatingly* laryngeal collapse due to rickets, and it appeared to fit in with the facts, but, as a safeguard, an X-ray photo was taken. The skiagrapher equally unhesitatingly demonstrated to our satisfaction a foreign body in the trachea, and there it undoubtedly seemed to be, rising to the lower border of the larynx, and sinking, when crying, below the top of the sternum.

I demurred to the possibility of a farthing being in a trachea four months old, and it is obviously impossible. Laterally the object was seen to have surface and little depth, and was taken by us three to be a small metal button covered with cloth in the trachea, but I do not think the surgeon saw it so clearly as we did.

The child was anæsthetised for an hour and a careful tracheotomy done without result. Another day, after the child had recovered, another anæsthetic lasting nearly an hour and a half was given and the bronchoscope with great difficulty introduced, and eventually the trachea down to the bronchi was seen very well, and the child breathed easily without stridor. During the process something was seen (by the surgeon only) in the bronchoscope; before it could be grasped it was violently ejected, and a careful search failed to find it. He confidently identified it as a piece of granite embedded in mucus. The child gradually recovered but had two or three bad choking attacks, and certainly in two of them, removing the tube and inserting dilators did practically nothing to remove the dyspnœa and cyanosis.

At this stage I was profoundly uneasy and dissatisfied, and on discussing the question with the surgeon we reached amicably the parting of the ways, which was that I was to leave the throat business to him and he would be responsible, and attend to the feeding, etc., which was my business. I did not feel justified in the critical condition of the child in dismissing the surgeon, although the parents would at that time have taken the advice. I suggested a further consultation, but he declined to see any necessity. The child was eventually able to do without a tube, and as a last resort I suggested another X-ray just before the child left the Home.

It was carried out in the Home in an imperfectly darkened room; frankly, I saw nothing positive or negative, and was not even able to identify the trachea or ribs on the screen. The skiagraphist *unhesitatingly* said there "was nothing there now," but a photo was taken. On this the child went home, still with a stridor at times, said to be possibly due to adenoids for which an operation was suggested by the surgeon and declined for the time being.

Here the matter might have stayed, all of us except the surgeon and the skiagraphist profoundly unconvinced, but I called in to see the plate. To my amazement the plate showed clearly and unmistakably exactly the same shadow as before. The skiagrapher assured me that the spot was *not* a foreign body but a gland. I pressed him, and he admitted it was unsatisfactory and asked to be allowed to repeat the X-ray.

The surgeon, the baby, the mother and myself met at the X-ray room to have another investigation. The baby was destined for the country to recover of the rickety

condition of its larynx after the removal of the foreign body. *Quem deus vult perdere, prius*—immediately before the last X-ray examination the surgeon spent half an hour in explaining at length to the mother the precise nature of the granite and its colour.

The X-rays, for the third time, showed the condition unaltered. Consequently, for an hour or more, the surgeon endeavoured, under the X-rays, to extract from the œsophagus an obvious circular Röntgen-ray opaque substance. These attempts were tantalising and harrowing to a degree, the coin and the forceps being easily seen by the rays. Once, apparently, it was grasped, but bits of the œsophagus alone were extracted. Finally, the baby went home moribund and died next day with a temperature. Mr. Symonds saw it next day, but could give no hope, as he detected a cellulitis round the œsophagus, and the baby never rallied from the shock.

During the last 24 hours it transpired that a coin, not a farthing, but a pfennig was missing, and the reference is irresistible that the child had been given the coin, and had swallowed it, but the nurse, one cannot help suspecting, must have known more than she liked to admit.

The post-mortem showed the coin firmly embedded in the œsophagus, and not movable up or down, just below the level of the larynx. The specimen is available for the museum.

On reflection, the most obvious omission was that of the œsophageal bougie or œsophagoscope, but the latter is very difficult in a baby of four months with dyspnœa, and the surgeon claimed to have eliminated the œsophagus by a digital examination at the first operation. The *interpretation* of the X-rays certainly led us astray, in the first instance leading us to diagnose tracheal obstruction, and in the second supporting the theory of the small foreign body in the trachea with a soft rachitic larynx. One thing was new to me—

The extreme mobility of the œsophagus in a baby. The coin travelled an extreme range of three inches at least, from an inch below the top of the sternum to just behind the larynx. From the invariable length of its travel, and its constancy of travel during three weeks, and its being embedded firmly at the post-mortem 24 hours after the 3rd X-ray, I am satisfied that it was the œsophagus that travelled with the larynx as a whole. Its range of movement was most remarkable, and certainly suggested that the coin was going up and down the trachea.

Another question is the extent of a medical man's responsibility.

In this case, though profoundly uneasy, we were driven to adopt the course of leaving the responsibility to him, for to take the responsibility of insisting on a consultant's retirement in the middle of a critical operation, demands a belief that, where all is dark, one's own opinion must be right, a state of mental satisfaction I fear I shall never attain to. The sudden awakening to the truth, and the loss of a most delightful baby in the last twenty-four hours, was a great shock to all.

There never was any difficulty with the food or the swallowing, and practically no loss of weight nor temperature, except at the time of the tracheotomy.

The case lasted roughly a month, and until the last twenty-four hours, when our errors of diagnosis and treatment were apparent, it had not been easy. It is not clear to me now as to what was the wisest course when the truth was realised. What was done undoubtedly brought about an immediate catastrophe. But before and after death the coin was impalpable, and a baby's neck is short and thick. It may be taken for granted that the coin would not pass up or down naturally. It proved extremely difficult to extract, and anæsthesia was very difficult in view of the dyspnœa, the cramped nature of the area, the size of the parts and the age of the child, further delay was only too likely to be fatal from ulceration and cellulitis.

Finally, as to the anatomy and the size of the coin. The coin was bronze, inscribed Magyar Kiralyi Valtopenzi, 1900, and a wreath and the figure 1 on the obverse. It was circular, of the thickness, but much smaller, than a farthing, with a diameter of 17 mm. The trachea admits with difficulty a circle of diameter 6 mm. The pharyngo-œsophageal function admits 14–18 mm. Below the impacted coin the diameter (slit-wise) is only 14 mm. stretched.

J. M. BRYDONE.

Guy's Hospital Physiological Society.

The annual meeting of the above non-affiliated Society will take place on Monday, October 14th, when Dr. Pembrey will be in the chair. It is to be hoped that there will be a large attendance, and students commencing their physiological and anatomical studies are invited specially to become members.

Men will find in this Society a splendid opportunity for cultivating broad views on physiology and allied subjects, and for practising the art of public discussion.

Guy's Hospital Students Club.

Dr. Hale White, President.

NOTICE.

On November 6th, Lieut. H. T. C. Knox, of the Navy League, will deliver an address, illustrated by Lantern Slides, entitled "The British Navy, and Foreign Warships and Dockyards." The meeting will be held in the Smoking Room, at 8 p.m. Coffee will be served in the College Dining Hall afterwards.

T. B. LAYTON,
Hon. Sec.

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 384.*)

VIII.

ROUND ABOUT THE HOSPITAL.

"*Let's talk of graves . . . .*"—Richard II., iii., 2.

We have already seen that The Maze was originally part of the pleasure grounds attached to the mansion of the Abbots of Battle. This estate fell into the hands of the Copley family about 1472, and remained in their possession until 1623. One of the Copleys married a Weston of Sutton Place, and from this estate and from the names of Melior May Weston and John Webb Weston are derived the names of John Street, Webb Street, Weston Street, Melior Street and Sutton Street.

The College was built upon the site of the Maze Pond Baptist Chapel. In digging the foundations in 1888 there was discovered a small stone bas-relief (14½ by 7¼ inches), which is believed to have come from the mansion of the Priors of Lewes in the twelfth century.

The Maze was already built upon at the beginning of the eighteenth century, but Snow's Fields were still open fields and tenter-grounds less than a hundred years ago. Rocque's map of 1746 shows a roadway, Collingwood Street, running east and west immediately parallel with the back steps of the Colonnade, meeting Maze Pond by the "Anabaptist Chapel," and, in the other direction, ending abruptly at Ditch Side. The latter was a none too savoury stream, long since enclosed as a sewer, which ran from St. Thomas-à-Watering in the Kent Road towards the Thames, passing behind the yards of the Tabard, George, White Hart, and King's Head. The line of the present roadway in front of the Medical Buildings is shown as Gravel Walk, afterwards Sutton Street. The parallel pathway in front of the Library and Medical School was at one time known as Queen Street. About 1860 Queen Street was added to "the lunatics' airing-ground" (no longer required for that purpose) to form the Park of Guy's.

To the east of St. Thomas's Street, at a spot marked on the same map as "The Tents," were erected temporary shelters for some of the thousands of Protestant refugees who were driven from their own country, the Palatinate on the borders of the Rhine, by the French in 1708. Subscriptions for their relief were organised by William Penn and Dr. Mead, to which Thomas Guy gave £100, "and at the same time the like sum to St. Thomas's Hospital on account of the admission of a great many of those among them who were sick and disabled."

Much of this land, which had previously been used by fellmongers and tanners and as a burial-ground for St. Thomas's Hospital, was acquired about 1816 by Guy's for use as a Botanic Garden, on condition that St. Thomas's might bury their dead in the graveyard in Snow's Fields. Later still part of this ground lying in the angle between St. Thomas's Street and Maze Pond was rented by Guy's for the Treasurer's stables and for an asphalted tennis-court for the use of students. Guy's had another and a larger Botanical Garden on the site of St. Stephen's Church, near Long Lane.

In the hospital days of William Rendle, the Southwark antiquary, "Dr. Addison used to take us in a semi-serious, amateur sort of walk to the 'Botanic Gardens,' by the Ship and Shovel, east of Guy's."

The tavern in Steel Yard, now Maze Pond Terrace, just mentioned was originally built under the style of "The Shovel" in 1704, and appears to take its name from the famous Admiral Sir Cloudesley Shovel who, in that same year had, with Sir George Rooke, captured Gibraltar. In the earlier part of the last century "a continuous stream of pots of *half-and-half* might be seen to pass during the working hours of the day," between the Ship and Shovel, and the dissecting-room. Rendle mentions the Ship as "well known to medical students, among them Albert Smith, who was a medical student at Guy's;" this is surely incorrect as far as the second assertion is concerned, for A. S. was a Middlesex man.

John Keats, as a student, was a dresser to Mr. Lucas of Guy's, in 1815, and lodged in Dean Street; his name appears on the same page of the register as that of Thomas Wakley, the founder of the *Lancet*.

Sparrick's Row was in existence under that name, at least as early as 1825, but we have been unable to discover any information regarding its sponsor.

Crosby Row, in all probability, is named after Brass Crosby, Esq., whom we saw commemorated on the obelisk of St. George's Circus. As Lord Mayor, in 1771, he was imprisoned in the Tower for his refusal to back *press-warrants*. John Wilkes was a City Alderman in the same year, and, as may be imagined, actively assisted Crosby in resisting the high-handed action of Parliament in this matter. The City Council had endeavoured to abolish the press-gang within the limits of the City, by substituting a system of monetary bonuses to volunteers for service in the Royal Navy.

The "Welsh Chapel" in Crosby Row was built for, and used by John Wesley in his earlier years in London. He published, in 1747, a book under the appropriate title of "Primitive Medicine," in which, among other absurdities, this treatment is recommended for "a dry or convulsive asthma"; "Dry and Powder a *Toad*. Make into small Pills, and take one every hour 'till the Convulsions cease." He is said, also, to have advocated for hernia in young children the following procedure—by no means a happy instance of "clerical interference"; "Boil in a pint of milk, egg-shells dried in an oven, and powdered. Feed the child constantly with bread boiled in

this milk." As far as we know he published no statistics of his cases.

Snow's Fields is the site of a Roman cemetery. Other Roman remains, in which South London appears to be particularly rich, have been found in Deverell Street, New Kent Road (cemetery), St. George's Fields (coins, urns, tesselated pavement, etc.), the neighbourhood of St. Saviour's and the Borough, and on the site of St. Thomas's Hospital urns and a tesselated pavement have been found. It is not many years since a number of *amphoræ* were discovered when the engine-room of our own hospital was being built. But Guy's is, indeed, situated on historic ground, which needs little more than a scratch to disclose antiquities of all kinds, from bas-reliefs to *bellarmines*, clay pipes to pewter, and Dutch tiles to British skulls. Much of the Park is the site of a "plague-pit," in which the victims of the scourge of 1665 were buried hurriedly by scavengers who furiously smoked tobacco in clay pipes as a prophylactic against infection. The ground in the neighbourhood of the dissecting-room was at one time used as the hospital graveyard.

Newcomen Street is a recent name for the thoroughfare cut through the Axe-and-Bottle Yard of Strype's map to join with Snow's Fields, and known in former times as King Street, or Union Street. The Royal Arms of George III. on the front wall of a public house in the narrow portion of this street came either from the King's Bench Prison, or, as others assert, from the gate-house of London Bridge. Mrs. Newcomen, who endowed the school which bears her name, was a benefactress of the seventeenth century; ownership plates inscribed "Mrs. N." are to be seen on many of the houses in the street.

Those pleasant names, The Ride, Bowling Green, and Tennis Court, remind us that the lot of the more favoured "collegians" of the older Marshalsea was not without alleviations, and that both bowls and tennis were played here by the prisoners.

Doggett, the eighteenth century actor who instituted the sculling match for his "Coat and Badge," still rowed by the Thames watermen on or about August the First each year, lived at "the *Angel* next the Bench," from which Angel Court takes its name.

The Church of St. George the Cappadocian Martyr is first mentioned in 1122, when Thomas of Arderne bestowed it on the monastery of Bermondsey. It was rebuilt in 1735 "with a spire steeple most awkwardly standing on stilts."

Besides Mrs. Newcomen's foundation there were several other charitable schools in the district; that of Mrs. Appleby, 1681; another, near St. Thomas's, supported by private contributions, for educating, clothing, and putting apprentice 30 boys; and "within the limits of this parish, a charity school for 40 girls, who are cloathed and educated." The latter is, perhaps, a reference to the St. Olave's Girls' School at the end of Maze Pond, bearing the effigy of a prim little maiden in Elizabethan dress.

Until late in the last century the parish school stood on the site occupied by the newer houses at 24 and 26, St. Thomas's Street, near by the house of the Beadle of Guy's. The garden behind these same houses was formerly the burial ground of St. Thomas's Church. The former burial ground of Guy's Hospital in Kipling, once Nelson, Street has been rescued of late from a builder's yard and converted into a playground.

St. Thomas's Street was known in Stowe's day as Theeve's Lane. "Foul Lane," or "Dirty Lane," now Bedale Street, across the road, kept its unpleasant name much later. St. Thomas's Church was originally the church of the monastery and hospital, but was diverted to parochial use after the Dissolution. It was rebuilt in 1702, in brickwork, with a square tower closely resembling that of the earlier church. It was converted in 1901 into a Chapter House attached to the Southwark Cathedral.

The first complete English Bible, the version of Miles Coverdale, was "imprynted in Southwarke in St. Thomas Hospitale by James Nycholsson" under the care and patronage of the hospital authorities, in 1536. Nycholsson designed some of the stained glass in King's College, Cambridge. There was an earlier printer in Southwark, however, Peter Treveris, whose first book, a quarto, entitled, "Disticha Moralia," appeared in 1514. Among the later printers in the neighbourhood were several established in houses upon the old bridge. Thus "A compleat System of Physick," by William Salmon, was published at *the Three Bibles on London Bridge*, 1685/6; whilst "Observations in Surgery," translated from the French by J. S., Surgeon, was printed at the *Looking Glass on London Bridge* in 1740. Another Southwark production is an edition of the text-book whose exactitude the proverbial expression, "according to Cocker," immortalises; "Cocker's Arithmetick, perused and published by John Hawkins, Writing Master, near St. George's Church in Southwark, 1718."

Thomas Guy's own publications were all produced north of the river from the Oxford Arms, "at the corner shop of Little Lumbard Street and Cornhill, near Woolchurch Market."

From St. Thomas's Street, Cox, the medical publisher issued in 1798, "Medical Reports and Researches," edited by Sir A. Cooper, Dr. Haighton, and Dr. Babington; and as late as 1832, "A Treatise on the Operation of Cupping," by Monson Hills, Cupper to Guy's Hospital. Cox was succeeded in the same premises in St. Thomas's Street by Churchill, another of the great medical publishers. After Churchill left, his shop became a garden, of a few square feet, in which were to be seen a fountain with a live eel in it, and a bench where "Teddy" Cock used to sit, in the shade of what the students of the day irreverently called, his "Copaiba tree."

Some of the old historians, among whom is Aubrey, assert that Thomas à Becket's father lived in Southwark, close to the spot where later stood the hospital dedicated to St. Thomas. If the old-fashioned history book is to

be believed (it isn't) the "Saracen Maid" must have wandered up High Street seeking a husband, with the insufficient address "Gilbert, London."

To conclude this essay we may be allowed once more to break through our definition in order to depict the Borough High Street in the early nineteenth century.

After the construction of the approach to New London Bridge, there was erected, nearly opposite the eastern end of St, Saviour's, a clock-tower in the form of a market-cross, as a testimonial to the Duke of Wellington "in recognition of his exertions in facilitating the means of erecting" the new bridge. For a time the roadway at this point was known as Wellington Street; but the monument has been removed to Swanage in Dorsetshire.

The description which follows is from the "Looking Glass for London" in the *Penny Magazine* of 1837. "Wellington Street, the new approach to the bridge on the Southwark side, is, like King William Street on the opposite or City side, quite new and spacious. But a little higher up we are in High Street with its Town Hall and shop-like Post Office, and here we might imagine we were in the main street of a bustling country town. Upwards of one half of the hop dealers of the metropolis have their shops or establishments in High Street, and of the remainder the greater portion are in the neighbourhood. The other occupants of the High Street are dealers of every description, woollen and linendrapers, butchers, cheesemongers, hardware merchants, surgeons, chemists, tobacconists, tea dealers, etc., with sundry waggon-inns and public-houses."

On the best authority, we may add to this list the establishment of the boot-maker whose window the immortal John Jorrocks used to scan, in the days of Alderman Harley, for the list of meets of the Surrey hounds.

(To be continued.)

A Case of Immediate Torsion.

A Boy, Frederick John D. —, aged 15, presenting marked rotation of the upper left central incisor, was brought to Mr. Lewin Payne for operation, on September the 25th.

The tooth was seen to be placed in such a manner, that its mesial border looked directly forwards, *i.e.*, towards the lips, its distal border directly backwards, *i.e.*, towards the palate, while its normal palatal surface was behind the mesial border of the neighbouring incisor. The lateral on its distal side had been recently extracted. The mouth was healthy and the tooth in good condition.

The position of the tooth was corrected by immediate torsion, which was performed in the following way:— The gum was cleaned with chloroform and painted with iodine. Forty minims of a solution containing two tablets of novocaine dissolved in distilled water were injected into the alveolus, the needle piercing the bone almost as far as the apex of the tooth.

Two vertical incisions were then made in the alveolus on either side of the tooth by means of Kœbers and Gordon White's saws, thus separating the tooth, together with that portion of the bone which formed its socket, from the bony structure on either side. The bleeding which was slight was arrested, and the now isolated tooth, with its attachment, grasped with Grevers' forceps, and gently twisted into correct alignment. Thus the tooth was not severed from its immediate bony attachment, a point of great importance.

The tooth was then held in its new position by means of a previously constructed retention plate, consisting of two metal caps covering the crowns of the first molars, from which extended two gold wires, bent in such a manner that the one impinged on the labial, the other on the palatal aspect of the newly placed tooth. The plate was cemented in the mouth, and held evenly in place by ligature wire fastened to the premolars and incisors. The after treatment consisted of a chinosol mouth wash, and a daily syringe with warm H_2O_2 10 vols.

Appointments.

Naval and Military.

Fleet-Surgeon W. J. Bearblock, R.N., to *President*, additional for three months Senior Medical Officers' course (to join R.N. College, Greenwich).

Captain H. V. Bagshawe, R.A.M.C., on arrival in Egypt for a tour of service, will be appointed Specialist Sanitary Officer.

Captain A. C. Osburn, R.A.M.C., has been selected for appointment as Specialist in Dermatology and Venereal Disease to the Connaught Hospital, Aldershot.

Gazette Special Pathologist.

H.H.C., Northallerton.—This specimen contains but little muco-pus, and tubercle bacilli are not detected.

M., Reading.—This tumour is an adeno-fibroma composed of enlarged gland acini enclosed in a fibrous and myxomatous stroma. It is an encapsuled growth, and not malignant.

PATHOLOGIST.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the Gazette *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette." Guy's Hospital, London, S.E.*

Henley's Hospital Poems.

The combination in one man of poet and physician is, in more senses than one, a rare combination; yet rarer still is the combination of poet and patient. In the one striking example that we have among the English poets of an actual hospital patient we have indeed great cause for gratitude. W. E. Henley was not merely a master of a particular type of lyrical poesy, and a prince in his own literary period, but must further be regarded as the representative bard of the particular life and work with which we of the hospitals are, to our pride, associated.

Surgeon, physician, house-officer, sister, nurse, and student, one after the other, are depicted in his inimitable word portraits, and each and all will find in his verses scenes painted and sentiments expressed which are lovable simply because they are concerned with things familiar. But perhaps their greatest value lies in the fact that they reveal here and there, in a fashion vivid, necessary and appealing, the patient's point of view.

Here are some typical excerpts:—

I.

"A small strange child—so aged yet so young!—
Her little arm besplinted and beslung,
Precedes me gravely to the waiting-room.
I limp behind, my confidence all gone. . . ."

II.

"Here, on a bench a skeleton would writhe from,
Angry and sore, I wait to be admitted:
Wait till my heart is lead upon my stomach,
While at their ease two dressers do their chores.

One has a probe—it feels to me a crowbar.
A small boy sniffs and shudders after blue-stone.
A poor old tramp explains his poor old ulcers.
Life is (I think) a blunder and a shame."

III.

"As with varnish red and glistening
Dripped his hair; his feet looked rigid;
Raised, he settled stiffly sideways,
You could see his hurts were spinal."

Lines such as these compel us to realize more fully some of the unpleasantnesses of casualty and out-patient attendance, although it should be remembered that they are the utterances of a mind far more sensitive and artistic than that of the average Borough patient, which rugged environment has fortunately rendered amazingly immune. Henley's "Operation," and "After" will appeal most of all to those who have undergone a similar ordeal. His description of the sensations associated with anæsthetisation is magnificient.

Best of all his verses, however, are his sonnets —"The Chief"; "Staff-nurse, Old-style"; "Staff-nurse, New-style"; "Lady Probationer"; and "Scrubber."

Each portrait is essentially real, yet each contains a haunting flavour of the ideal of the type which it portrays. One-time dressers will find old friends or acquaintances in all of them. Very beautiful, too, is the poem entitled "Visitor":

"Her little face is like a walnut shell
With wrinkling lines . . . .
* * *
Can you conceive a Fairy Godmother
The subject of a strong religious call?"

We have seen her in the wards ourselves, as

"In snow or shine, from bed to bed she runs . . .
Bearing a sheaf of tracts, a bag of buns."

"Going round" is admirably sketched in the following lines from "Clinical."

"Surging along,
Louts, duffers, exquisites, students and prigs—
Whiskers and foreheads, scarf-pins and spectacles—
Hustles the Class! And they ring themselves
Round the first bed, where the Chief
(His dressers and clerks at attention),
Bends in inspection already."

But all of these poems must be read in full, if they have have not been already read and read again. Surely the writer of them must have been grateful for the sufferings he endured; for without such travail the poems would never have been born, and the world would have been infinitely poorer.

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

Dear Sir,—I have had an enquiry from South Africa for the formula of Sir William Gull's Cough Linctus, and enquiry from members of the present staff and from West-end pharmacists has failed in identifying any particular preparation with his name.

Judging from present-day experience of the association of prescriptions with the names of eminent medical men quite innocent of their origin, it is very possible that no such formula exists, but I am writing this to you in the hope that some old Guy's man may be able to help me in the matter. If they will kindly do so I shall be grateful.—Yours faithfully, H. FINNEMORE,
Pharmacist.

Sport.

Rugby Football.

GUY'S v. CATFORD BRIDGE.

This fixture opened the Hospital programme for the new season, and few can find fault with the performance of the team. For a first match the pace was remarkable, and what is more encouraging still, is the fact that the rate of play was kept up to the last moment. H. Lee, G. B. Pritchard, A. H. Harkness, H. Daw, V. Glendining, C. S. L. Roberts, and A. V. Moberly, of last year's Cup Team were not playing. But some of them will turn out, as the season progresses, as only H. Lee and V. Glendining are out of their year.

Catford were not fully represented, and their weak tackling gave Guy's an easier task than would otherwise have been the case. But for all that Guy's played well, and gathering confidence after the first try (an easy one, which Rook made possible for Nicholls to practically walk over the line) they developed tactics which made the home defence appear very small. Nicholls's try was followed by one on Liebson's part. Then came a try from A. W. A. Davies, who managed to dribble through and gather easily to get right round to the upright. Medlock goaled twice, and Stokes once.

With this very useful lead, three goals at half-time, Guy's slacked for a time, the result being that Catford, whose forwards were a very weighty lot, dribbled right down-field, and Anderson scored a try for Lindow (of King's Hospital) to goal. After this, Guy's rapidly gained the upper hand, and the subsequent play does not need much detailing. The forwards set a very smart pace, and quickly put on three tries, two by Stranack, and one by Anthony. But in between came a very smart try on Nicholls's part. The ball came along from a kick that bounced low, Nicholls gathered and dashed off without a moment's hesitation, eluding several opponents he grounded in a very favourable position for Medlock to convert. There was no further scoring, the final total being:—Guy's Hospital: 4 goals, 3 tries (29 points); Catford Bridge: 1 goal (5 points). Team:—

Guy's.—H. Millett (back); A. L. Stokes, E. R. Nicholls, V. P. Curle, A. F. Rook (three-quarters); C. H. Medlock, J. E. Davies (halves); R. S. Kennedy, W. S. Stranack, O. Parry-Jones, A. L. Liebson, A. L. Anthony, A. W. A. Davies, C. Gibb, —. Cooks (forwards).

Remarks.—The team, as a whole, showed great promise. One or two forwards were not shoving very hard towards the end, but the pace of the game must have told on them, considering it was their first match. Davies was a little slower than usual at the scrum base, but the other backs, especially Nicholls, acquitted themselves well. It would be well if the back division took more pains to find touch, a little less length even; but "touch-finding" is essential. It helps the forwards so tremendously.

Shooting.

It was only possible to have one shoot for the Armitage Challenge Cup this year and Guy's were again unlucky in losing by so small a margin as one point.

Mr. R. Thompson, our president, was good enough to bring a team of Artists' Rifles against us.

Both matches were fired on the Century Butts, Bisley, on June 19th.

Scores.—H. Hogben, 94; E. J. Cooke, 99; J. T. Forbes, 87: S. W. Elkington, 85; F. Debenham, 81; S. E. Johnson, 97. Guy's, 543; St. Bart.'s, 544; The President's VI, 500.

There was no competition for the Bisley Cup this year owing to insufficient entries.

The United Hospitals Rifle Club found it impossible to bring off their annual prize meeting, but the Guy's Rifle Association held a very successful meeting on Wednesday, June 26th.

The following gentlemen most kindly contributed to the prize list, and we wish to record our sincere thanks for their kindness in this and many previous years:—Sir Alfred Fripp, M.S., K.C.V.O.; A. P. Beddard, Esq., M.D.; Messrs. Ash & Co., Ltd.; Messrs. Down Bros., Ltd.; Mr. H. H. Grattan; The Holborn Surgical Instrument Co., Ltd.

Results.

The Newton-Pitt Challenge Cup.—Holder, S. E. Johnson. Won by H. Hogben, 94.

Handicap Competition.—200, 500 and 600 yards. Seven shots.—J. T. Forbes (85+6), 91; E. J. Cooke (89 scr.), 89; S. E. Johnson (85 scr.), 85.

600 Yards Competition.—Ten shots.—H. Hogben, 43; E. J. Cooke, 42; J. T. Forbes, 38.

900 Yards Competition.—S. E. Johnson, 28; H. Hogben, 28; F. D. Annesley, 27.

Aggregate.—H. Hogben, 165; S. E. Johnson, 151; E. J. Cooke, 143; J. T. Forbes, 138; F. D. Annesley, 121.

E. J. Cooke, of Guy's Hospital, won the Donegal Bronze Badge for the U.H.R.C.

H. Hogben and S. E. Johnson, of Guy's, represented London University in the Imperial Universities' Match.

The Annual General Meeting will be held early in the year, when it is hoped that all men willing to shoot will attend.

Birth.

RAYSON.—On September 11th, at Knightsmead, Bayville, Cape Province, South Africa, the wife of H. Knights Rayson, M.D., M.R.C.S., L.R.C.P., of a daughter.

Marriages.

OROZCO–CASORLA.—MÉNDEZ.—On July 24th, 1912, at Carmen Church, San José, Costa Rica, Raûl Orozco-Casorla, B.Sc. (C.R.), L.D.S. Eng., to Hilma, fourth daughter of the late Don Clemente Méndez, of Morazan Park, San José.

HERTZ—RIDDIFORD.—On October 2nd, at St. Thomas's, Portman Square, by the Rev. Harold Anson, M.A., Rector of Birch, Manchester, and formerly Vicar of Hawera, New Zealand, and the Rev. A. G. Locke, M.A., Vicar of St. Thomas's, Arthur Frederick Hertz, M.D., F.R.C.P., younger son of the late William M. Hertz, of Bradford, and Bowdon, Cheshire, to Cushla, youngest daughter of Mr. Frederick Riddiford and of Mrs. Riddiford, of New Zealand.

Eds.—J. A. R.
F. G. L. S.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 635.] OCTOBER 26, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	433–435
Papers by Guy's Men	435
Guy's Hospital Debating Society	435–436
Correspondence	436–437
Report of the Guy's Hospital Chapel Committee	437
Muscular Atrophy. Clinical Lecture by Dr. Herbert French (*continued*)	438–441
London Bridge and the Borough in the Eighteenth Century (*continued*)	442–444
The Artist in the Park	444–445
Guy's Hospital Students' Club	445
Royal Army Medical Corps, Entrance Examination	445
Nursing News	445–446
Appointments	446
A Home-made Bacteriological Incubator	446
Pupils' Physical Society	447
Change of Address	447
Sport	447–448

Passim.

THE outbreak of war in the Balkans, and more especially of a war which is likely—by reason of the nature of its combatants, the climate, and the country—to be one of exceptional severity, at once directs attention to the question of medical equipment in the field. It appears that, with the exception of the Turks, none of the parties involved are by any means efficiently supplied with the hospital and ambulance resources that are essential for the proper conduct of the more humane offices of modern warfare. The activity of the Red Cross Society is, therefore, particularly opportune and commendable, and the dispatch with which its contingents are being organised, and the vast and enthusiastic rush of volunteers for the work, speak well for the courage and sympathies of our own countrymen and women. We are not surprised to learn that representatives from our own hospital are among the volunteers; we would congratulate them most warmly and bid God-speed to their splendid cause. Dr. R. O. Moon and Mr. A. H. Tubby are working on the Committee appointed for the selection of candidates for service. At present women volunteers are being wisely refused, but already since the commencement of hostilities one courageous Englishwomen has been doing noble service among the wounded Montenegrins. Miss M. E. Durham, the correspondent of the *Daily Chronicle*, is a daughter of one of our late illustrious surgeons—Arthur Durham—and Guy's, therefore, has an especial cause for pride in her heroic work. It seems little short of marvellous that one woman should be thus capable, not only of supplying a daily paper with its war-news, and contributing authoritative articles to other journals concerning the people whose cause she has at heart, but also of personally superintending and organising the care of the sick and wounded.

OF the uglier rumours of the campaign we are glad to observe that one at least has been refuted. It was reported that medical men had been sent to the front by the Turks armed with culture-tubes containing typhoid and cholera organisms. The possibility of the existence of such barbarous intentions seemed to us unlikely in the extreme, and even the practicability of such methods of massacre appeared improbable. Extraordinary precautions on the part of the miscreants would be necessary to avoid infection of their own troops, and the contamination of water sources, particularly if they be principally mountain streams, is not by any means an easy matter. Recent improvements in scientific method, and statistical knowledge of the great potency of the bacillus, as compared with that of the bullet, have, we must admit, created fearful potential forces of

destruction. Simultaneous advances in human development will, however, we think, prevent the actual application of such dangerous forms of knowledge.

We have received the Annual Report of the Guy's Hospital Ladies' Association, and are pleased to note that the work of its members continues to progress favourably. Seeing, however, that the Association is always eager still further to increase its membership, and thereby its sphere of usefulness, we take this opportunity of drawing the attention of all who are in any way connected with Guy's to its principal aims, and would commend the excellent results of its previous endeavours to their notice. The chief objects of the Association are: (1) The provision of clothes for use in the wards and for necessitous convalescent patients on their discharge; (2) to arrange for ladies to visit patients in the wards; (3) to support one or more beds in the Maternity Wards; (4) to take up any other work in connection with the Hospital which may from time to time commend itself to a general meeting of the Association. There are central and local branches of the Association and a branch of junior members; in London, during the winter months, working parties are regularly held at the houses of members. Last year a sum of £40 was presented to the Association by the committee of the Hospital Ball, and a further sum of £37 was contributed as the result of a Children's Fancy Dress Dance held at Christmas. The plan has been adopted of utilising these special sums by starting an endowment fund for a cot. There must be a very large number of Guy's men who have mothers, sisters, cousins, and aunts who would be only too glad to assist in the valuable work of this Association. There is a great deal of the work to be done, but it is a work which brings its own rewards. Mrs. Lauriston Shaw, 64, Harley Street, is the energetic secretary, and will gladly communicate particulars concerning the membership and work of the Association.

Dr. Frederick Taylor chose a most interesting subject for his lecture to the Hunterian Society. Sleep still awaits a satisfactory explanation at the hands of physiologists; and Sleepiness, of such a nature as to be viewed as a symptom of morbidity, is still more in need of elucidation at the hands of pathologists. Dr. Taylor adduced two cases which appear to disprove the "fatigue" and "anæmia" theories relating to the causation of sleep. In both of the cases quoted constant drowsiness was associated with a high blood-pressure—a condition which is supposed to be a frequent cause of insomnia. Toxæmias, of various origin, were next discussed as possible factors, and the sleepiness associated with myxœdema and acromegaly duly considered. In connection with these conditions the fascinating theory of Dr. Albert Salmon was quoted. Briefly, it holds that fatigue poisons operate continually from the time of waking, but are wholly or partially neutralised by secretion from the pituitary, the thyroid, and perhaps from other glands. Dr. Taylor remarked on the scarcity of drugs capable of preventing sleep, but suggested that pituitary and thyroid extract might prove beneficial in those cases which could be explained on Dr. Salmon's hypothesis.

Three of its best and most trusted workers have recently left the Hospital, after many years of good and faithful service in their respective departments. We feel sure that they will take with them the best wishes of all who knew them here. Miss Elizabeth Evans has been in charge of the Laundry Hostel since 1894. She was a probationer from 1887 to 1890, on the private nursing staff until 1892, and Dormitory Matron until 1894, when she was appointed to the Laundry Hostel, an institution which does much excellent rescue and prevention work in London. She left Guy's on October 7th. On October 19th Miss Winifred Upham also left us, as the result, we regret to learn, of ill-health. She came to the Hospital in 1894 as clerk in the Conservation Room, two years after the opening of the Dental School. In that department she continued to work uninterruptedly until the present date. It seems particularly unfortunate that she should be compelled to leave at a time when the Con-

servation Room, with all its recent improvements, is entering upon a new era. Lastly, we have to record the departure of Mr. Thomas Mills, who is retiring on pension from the Hospital service. He has been working at Guy's since 1866, when he was appointed plumber's mate. He was made a bath-man in 1884, and was appointed porter at the Nurses' Home when it was opened by the present King, as Prince of Wales, in 1902. His courteous and cheery countenance will be missed by the whole of the nursing staff, and many others about the Hospital.

We have been specially requested to urge men of all years to make a point of attending the lecture which is to be delivered by Lieut. H. T. C. Knox on the evening of November 6th. Lieut. Knox, we understand, is a great authority on his subject and an excellent lecturer. Questions concerning the Navy and naval administration are very much to the fore at present, and opportunities of obtaining information on matters of so much moment are not to be missed. The lecture is to be illustrated by lantern slides—the lantern being supplied through the courtesy of Stanley, London Bridge Approach. We understand that the meeting is to be free and informal in character, and men will not be debarred from smoking. It is to be hoped that many members of the Staff will also be present. Further particulars are to be found in a re-announcement of the lecture contained in this issue. J. A. R.

Papers by Guy's Men.

H. Chapple, M.C., F.R.C.S.: A Persistent Occipito-Transverse Presentation; Labour Obstructed at the Pelvic Outlet.—*British Medical Journal*, 19th October, 1912.

C. Higgens, F.R.C.S.: A Note on a Case of Double Cataract. The Case of "General" Booth.—*Lancet*, 19th October, 1912.

J. D. Malcolm, M.B., C.M. Edin., F.R.C.S. Edin.: Ovariotomy about Forty Years after a Discharge of Fœtal Bones through the Rectum. Recovery. Death a Year Later, at the age of 78, from Strictures of the Small Intestine and of the Common Bile Duct.—*Lancet*, 12th October, 1912.

Guy's Hospital Debating Society.

The first meeting of the session was held in the College Smoking-room on Thursday, October 17th. Dr. Fawcett occupied the chair. The motion was as follows: "That in the opinion of this House the Surgeon is of more use to Society than the Physician."

Mr. Schlesinger opened the debate. He expressed a hope that the members present would not be prejudiced by the fact that a physician was in the chair. Having defined surgery as the art of healing disease by manual skill and instruments, and pointed out that surgery must therefore include obstetrics and gynæcology, he proceeded to show that all through the history of medicine, various schools had risen to fame only to be dashed down shortly afterwards, and that nowadays physicians had to content themselves with using medicines which had been discovered by surgeons, *e.g.*, paraffin, or giving obnoxious drugs, concerning the action of which no two people were in agreement. They also made extremely clever diagnoses, which were only discovered to be wrong in the post-mortem room. Finally, he stated that the great argument for surgery, in the majority of cases, was that it returned the individual to the community in a wage-earning capacity, an achievement which medicine could scarcely ever boast.

Mr. Sandison (opposer) complained that the motion was absurd, as no definite line could be drawn between surgery and medicine. He questioned the proposer's remarks concerning the history of surgery, and said that it had only in reality advanced during the last fifty years, since the discovery of antiseptics and anæsthetics; before that time surgeons were merely callous, but sometimes skilled, butchers. Surgery had not yet emerged from the bottle-feeding stage, while medicine had already reached a respectable old age. The greater value of surgery as evidenced by its greater fees was not a fair argument, as it was principally a question of habit; and moreover, as surgery was often a matter of emergency, it was frequently a case of "your money or your life." He considered that preventive medicine was the great science of the future, and that in a few years surgeons would only be left with the injuries and congenital abnormalities to treat.

Mr. Edmond, who seconded the proposer, pointed out that surgery obeyed the biological law of survival of the fittest, and either returned to the community a good man or a corpse, whereas physicians kept useless patients alive in order to dose them with obnoxious substances.

Mr. Neville Cox, seconding the opposition, emphasised the fact that surgery was merely a branch of medicine. Ninety per cent. of cases in general practice were medical, and, therefore, medicine was much more necessary than surgery. He also said that to have a

thousand people injured in a railway accident was of much less serious import to society than the outbreak of an infectious disease amongst a thousand people. The work of an army surgeon was much more concerned with the prevention of epidemics than with bullet wounds.

Mr. Gatley said that there was a greater demand for physicians, as there were many more medical complaints than surgical, and the person who could invent a cure for cold in the head would make a fortune. Physicians were wanted in the army more than surgeons, as it was a well-known fact that more men died in the Boer war from enteric than from bullet wounds.

Mr. Mullally emphasised the fact that physicians looked after the vital organs, while surgeons dealt with the non-vital parts.

Mr. Mackenzie told an interesting anecdote, the application of which was doubtful.

Mr. Ryle compared the surgeon to the plumber. Both had to do the behest of a higher authority. No man could become a good surgeon until he was a good physician.

Mr. Miller complained that surgery suffered from absurd fashions in regard to its methods of treatment.

Mr. Maxted also complained of the subject for debate, and said that discussion was useless, as no definite line could be drawn between surgery and medicine.

Mr. Godding tried to defend the subject for debate, but was promptly ruled out of order.

Mr. Bevan-Brown compared the physician to an architect who had the highly trained mind, and the surgeon to the builder, whose work was purely mechanical.

Mr. Sandison and Mr. Schlesinger then replied, and Dr. Fawcett summed up the evidence for and against the motion, which was then put to the House. The motion was lost by 19 votes to 7. The meeting concluded with a hearty vote of thanks to Dr. Fawcett for occupying the chair, and then adjourned for coffee.

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

Constructive Anatomy.

Sir,—I am greatly interested in your two correspondents' suggestion under the above heading—that students of anatomy should attempt to reproduce their dissections by modelling them in plasticine, and in this way gain a more complete mental picture of the part they are studying. Undoubtedly, for those who can spare the time and who have an aptitude for modelling, this method would assist in producing excellent results, but the good results would be due largely, or at least in part, to the extra time spent in bringing about the reproduction. Yet, when one remembers the early attempts in modelling of those who have no love for Art, one trembles to think of the effigies the average student would produce in attempting to represent the parts beneath the skin. Next to modelling, pencil and water-colour sketching will effect a similar purpose with less expenditure of time, and probably with fewer failures. But here again the time spent in producing the picture is so much more time spent in the study of anatomy, and there is a danger that the art side may eclipse the study of the science. It was so, I admit, with myself. In my first and second years I was constantly sketching my dissections and spending much time in the evenings finishing the drawings in water-colours. It was in my second year that the Senior Demonstrator, Dr. Moxon, took me aside and said, "Lucas, you can be one of two things, you can either be an artist or an anatomist, but you cannot be both. Which is it to be?" I had to admit that my parents wished me to be a surgeon. "Then," he said, "shut up that paint-box and do not open it again till you have finished your examinations." I knew he was right, but it was with a heavy heart I closed my paint-box, for I had been examined and commended for free-hand drawing by Ruskin before I entered the hospital. I have still a yearning for those idle hours in art, but Dr. Moxon saw truly that it exerted a spell upon me, and that I never knew when to leave off. I kept my promise, and did not open my paint-box for thirty years, and then to learn how little was left of my early promise, and how impossible it is to do in age what you have not constantly worked up to through life. Still, though my art degenerated to coloured chalks on a black-board, and blotting-paper sketches when dull people were talking at meetings, I think it enabled me to keep the attention of my classes in anatomy when the fluency of my speech failed; and this method gives confidence to learners, since they see you must know thoroughly if you can reproduce with exactness from memory the details of the part you are demonstrating. Speech is often obscure from ignorance it is designed to cover, but drawing or writing is positive evidence against the knowledge of its author.—Yours faithfully,

R. CLEMENT LUCAS.

50, Wimpole Street, W.

October 18th, 1912.

Dear Sir,—The enclosed cutting from a recent evening paper will doubtless interest many of your readers. Dr. E. H. Griffen entered the Hospital from Cambridge University in 1898 and qualified in 1902. He has been engaged in work for some years in Venezuela and quite recently returned to the Hospital to do three months' "dressing" to Mr. Symonds. He was again tempted abroad as Surgeon in charge of the Red Crescent Field

Hospital on behalf of the Turks in Tripoli. The accompanying excerpt details the latest of Dr. Griffen's adventures, one of many experienced and enjoyed by him in the course of his travels.—I am, Sir, yours faithfully,

ROBERT W. CUSHING.

Guy's Hospital, London, S.E.

A Red Cross Disaster.

Dr. E. H. Griffen, who has gone out from London in charge of the Red Cross Field Hospital organised in London for the Turks in Tripoli, was driven back to the port of Sfax by a gale. On landing he was at once denounced as a smuggler to the Custom House officials by some busybody. All his medical stores were ransacked, much to his annoyance. The matter ended with an apology from the Custom House, and Dr. Griffen left shortly afterwards for the Turkish headquarters. It is an interesting fact that his Field Hospital has been largely financed from India, £6,000 having been contributed by wealthy Mohammedans.

Dear Sir,—I have copied the enclosed from an old note-book of mine, and remember that long ago I used to prescribe it in chronic bronchitis with much benefit. I have it down under "Chronic Bronchitis" and over the name of Sir William Gull. It is somewhat of a coincidence that this week I have used an enema of Dr. William Gull which I use after a long operation under chloroform where the patient has been prepared by a somewhat lengthy fast. When I first heard it I called it a "Two with you," as that is the way it was given to me, and makes it somewhat easy to remember.

Two ounces of strong beef-tea.
Two tablespoonfuls of brandy.
Two tablespoonfuls of boiling water; and
Two pieces of sugar.

When asked why two pieces of sugar, Gull was reported to have answered "To promote dialysis." Be this as it may, it is very good for my purpose, though, perhaps, Dr. Beddard might improve upon it.—Yours sincerely,

United University Club,

TOM BIRD.

Pall Mall East, S.W.
October 15th, 1912.

℞ Acid. Sulph. Aromat.
Spir. Æther. Nitros.
Tinct. Capsici.
Spir. Chloroform a.a. ℥i.
Syr. Papaver, Alba. ℥i.
Oxymel. Scilla with Ipecac. ℥i.
Decoct. Senega ad ℥viii.

In ft. mist. ℥ss. ter die.—To be drunk slowly.

Copied by T. Bird.

65, Conduit Street, W.
October 15th, 1912.

Report of the Guy's Hospital Chapel Committee.

The Chapel Committee have pleasure in presenting the following report for the year ending Easter, 1912.

There have been two important alterations made with regard to the Chapel Services. Since Ash Wednesday, Feb. 21st, 1912, the Holy Communion has been celebrated daily throughout each week at 7 a.m., and on one day during the week the opportunity of having it celebrated has been given at 8.45 a.m. as well, for the benefit of those on night duty.

During the year there has been a change both of Acting and Assistant Chaplains.

In August, 1911, the Reverend W. A. Dunn resigned his appointment as Acting Chaplain, after over four years' devoted work, and left to join the staff of Clapham Parish Church, and to become, eventually, Priest in Charge of the new Church of the Holy Spirit, on the South side of Clapham Common.

In the same month, the Reverend Cecil Luxmoore-Ball, Assistant Chaplain, was appointed Acting Chaplain, and his place has since been filled by the Reverend A. E. Popham, from the Church of the Ascension, Plumstead.

The Committee has once again to expresss its thanks to Mr. Clive Carey, for his careful and energetic supervision of the Chapel music. The attendance of the members of the Students' Choir has fluctuated considerably. We would appeal earnestly to all for greater and more regular and sustained keenness.

The Committee desires to express its gratitude to the Clergy who kindly preached at the Advent and Lent Services, and on other special occasions; also to the Reverend Austen Taylor for his kind assistance in November and December.

The Balance Sheet for the year ending December, 1911, shows a balance at the Bank of £29 10s. 7d.

The following have been elected to serve on the Chapel Committee for the coming year:—*Ex officio*, the Acting Chaplain, the Assistant Chaplain, the Superintendent, and the Matron; the Assistant Matron, Sister Cornelius, Sister Martha, Sister Bright, Sister Light, Sister Florence, Nurse Moore, Nurse Beardshaw, Nurse Groom, Nurse Brennand, Nurse Combe, Dr. Mann, Messrs. Dunderdale and Galbraith.

Gazette Special Pathologist.

E. R. T., Tunbridge Wells.—This growth is composed of young fibrous tissue and granulation tissue, the result of infection. It is partly ulcerated and partly covered by mucous membrane, which shows no evidence of a malignant growth. It may be termed a fibrous epulis, and we conclude that it is of periosteal origin.

PATHOLOGIST.

Muscular Atrophy.

A CLINICAL LECTURE BY Dr. HERBERT FRENCH.

(*Continued from page 426.*)

Myelitis.

Myelitis, or inflammation of the spinal cord, may be acute or chronic, localised or diffuse. The inflammation involves both the grey and the white matter. The affected part of the spinal cord becomes soft and diffluent, and on section has a congested appearance. Microscopically, congestion of the blood vessels, capillary hæmorrhages, exudation of leucocytes, and breaking up of the myelin sheathes of the nerve fibres is seen. Degenerative changes in the descending tracts below and of the ascending tracts above the lesion follows. Muscular atrophy occurs if the lower cervical or lumbar regions are involved and when the inflammation is diffuse.

It is predisposed to by syphilis, and arises from injuries to the back, exposure to cold and wet, by extension of adjacent inflammation, and as a complication of the acute specific fevers.

In acute myelitis, paralysis and anæsthesia may come on in a day or two, or in some cases within a few hours. The earliest symptoms are malaise, tingling and numbness in the extremities, pyrexia, hyperæsthesia and twitchings and cramps in the muscles.

Cervical Myelitis.

In a case of myelitis affecting the lower part of the cervical cord the following signs may be found:—

Motor.—Paralysis of the arms and legs followed by rigidity of the legs. Paralysis of the intercostals, and if the myelitis has involved the fifth cervical segment the diaphragm will also be paralysed.

Sensory.—Loss of sensation in the arms, legs, and body to a line corresponding to one and a half segments lower than the upper limit of the lesion, there being at the upper level of anæsthesia a narrow band of hyperæsthesia.

Reflexes.—Wrist and elbow-jerks not obtainable; knee-jerks increased; ankle-clonus and extensor plantar responses present.

Trophic.—Atrophy of the muscles of the hands and arms. Bedsores are apt to develop unless the nursing is very carefully attended to.

Electrical.—Reaction of degeneration given by the atrophied muscles of the hands; none in the trunk or leg muscles.

Bladder and Rectum.—Retention at first, followed later by involuntary passage of urine and fæces.

In some cases hyperpyrexia occurs, the temperature rising to 107° F. or even 110° F., the pulse may become slow, even so infrequent as 20 or 30 per minute, and the pupils may be contracted.

When the respiratory muscles are implicated death occurs from pulmonary complications.

Lumbar Myelitis.

In a case of myelitis affecting the lumbar region of the cord the following signs may be found:—

Motor.—Paralysis of both legs, but no rigidity.

Sensory.—Anæsthesia of both legs to about the level of the pubes and the iliac crests, the upper limit being bounded by a narrow zone of hyperæsthesia.

Reflexes.—The cremasteric and gluteal reflexes and the knee-jerks are lost.

Trophic.—The muscles of the legs become atrophied, and bedsores are very liable to form.

Electrical.—The atrophied muscles give the reaction of degeneration when tested with the interrupted and continuous currents.

Bladder and Rectum.—As the bladder and rectum centres are situated in the lumbar portion of the spinal cord and are destroyed, incontinence of urine and fæces is the result.

Special Senses.—The special senses are not involved.

Diffuse Myelitis.

This, the rarest form of myelitis, is usually acute. It commences with tingling, numbness, weakness, and pyrexia, symptoms which are rapidly followed by paralysis. In a well-marked case of the disease the following signs may be present:—

Motor.—Paralysis of the arms and legs and of the intercostal and abdominal muscles.

Sensory.—Anæsthesia of the limbs and body which may be preceded by hyperæsthesia.

Reflexes.—At first the reflexes may be increased, but they are soon lost.

Trophic.—Atrophy of the muscles of the limbs and body; congestion and local sweating of the skin, and bedsores, especially over the sacrum.

Electrical.—Reaction of degeneration is given by the atrophied muscles.

Bladder and Rectum.—Retention of urine or incontinence of urine and fæces.

Special Senses.—The inflammation may spread to the bulb and lead to paralysis of the lips, tongue, and pharynx. There may be optic neuritis.

Termination.—Death usually occurs in from a few days to three or four weeks.

It must be distinguished from Landry's paralysis in which disease there are no trophic changes, no reaction of degeneration and no impairment of the functions of the bladder and rectum.

Hæmato-Myelia.

Primary hæmorrhage into the spinal cord is very rare. It always commences in the grey matter and is followed by inflammation of the adjacent parts of the cord. The spinal cord is enlarged and darkened at the seat of the hæmorrhage. The chief causes are:—injuries to the back and the presence of gliomata and cavities in the cord.

The onset is usually very sudden and usually without any prodromal symptoms. The patient may sud-

denly complain of pain in the back and fall down from paralysis below the seat of the lesion. Localised pain in the spine over the seat of the lesion is generally present. Wasting of the muscles occurs if the cervical or lumbar enlargements are affected.

The signs are similar to those which are found in myelitis. It is distinguished, however, from myelitis by the extremely sudden onset, the local pain in the spine and the absence of prodromal symptoms and of pyrexia at the onset.

In meningeal hæmorrhage the pain is more severe, it spreads along the course of the nerves and paralysis is preceded by signs of irritation.

Hæmatomyelia may be simulated closely by certain cases of spinal caries in which, without warning, *sudden* paraplegia may develop from the giving way of the structures that have hitherto confined the caseous abscess, allowing the contents of the latter to escape suddenly into the vertebral canal and compress the spinal cord.

Syringomyelia.

The chief pathological changes in the spinal cord in this disease consist of the formation of cavities of varying size, shape, and position, surrounded by neuroglial tissue, the adjacent white matter being deficient. The cavities are partly due to a defective closure of the central canal and partly to a breaking-down of the surrounding neuroglial tissue. The posterior half of the cord in the upper dorsal and lower cervical regions is most frequently involved. The pathological changes may extend downwards into the lumbar cord or more frequently upwards into the upper cervical region and the medulla.

It occurs more frequently in men than in women (about 70 per cent.). In young children it does not, as a rule, cause any symptoms.

The onset is slow and insidious. The most characteristic signs of the disease are:—loss of sensibility to pain and temperature, both heat and cold; and muscular atrophy. Inability to appreciate sensations of heat and cold is the earliest symptom in most cases, but it may be preceded by hyperæsthesia especially to pain and temperature. A patient may first come under observation for a burn, the loss of sensibility to both pain and temperature having allowed him to hold or touch an object sufficiently hot to cause a burn or scald without his realising that he was being burnt. In a well-marked case of the disease the following symptoms may be found:—

Motor.—Weakness of the hands and arms, which, however, is a late symptom and follows some considerable time after the sensory changes have become manifest. There may be weakness and rigidity of the legs as a result of degeneration of the pyramidal tracts. Fibrillary contractions of the wasted muscles are common. There may also be weakness of the spinal muscles leading to lateral curvature of the spine.

Sensory.—Tactile sensation is usually not lost. Loss of sensation to both heat and cold and to pain is the most constant and characteristic sign of this disease. Perversion of temperature sensations, heat being felt as cold, and vice versa, has been observed in some cases. These sensory changes are usually confined to the hands, arms, and upper half of the body, though they have been recorded in the legs also. The muscular sense is normal.

Reflexes.—As a result of the frequent associated degenerative changes in the pyramidal tracts the knee-jerks are exaggerated, there is patellar and ankle-clonus and an extensor plantar reflex. As a rule, wrist-jerks and elbow-jerks cannot be elicited.

Trophic.—Next to the sensory phenomena described above, atrophy of the muscles of the hands and arms is the commonest indication of this disease. The muscles of the legs are rarely found to be wasted, as the changes in the cord are confined chiefly to the upper dorsal and lower cervical cord. The skin may become thin and glossy in some cases, whereas in others it may be thick and horny. The fingers and hands may be cold and livid, but in some cases they are red and hot. Various skin eruptions may be found, viz., herpes, eczema, bullæ, painless chilblains, and even gangrene. The nails may be cracked and fissured, the bones thickened and brittle, and the joints enlarged as in locomotor ataxy (Charcot's joints).

Electrical Reactions.—The electrical irritability of the wasted muscles is lowered, and some of the muscles may give the reaction of degeneration.

Bladder and Rectum.—As a general rule the sphincters are not involved.

Special Senses, etc.—Impairment of the sense of taste and smell, inequality of the pupils, nystagmus, paralysis of a vocal cord, the tongue or palate, may also be present.

The course of the disease is slow and progressive, death finally taking place from exhaustion, cystitis, extension of the disease to the medulla and pons. The association of muscular atrophy of the hands, and spasticity of the legs with loss of sensation to pain, heat and cold, whilst ordinary cutaneous sensibility remains are pathognomic of syringomyelia.

Muscular Atrophy from Over-Use.

Muscles may waste as a result of over-use especially in persons who are in a weak state of health. The thenar, hypothenar, and interosseous muscles are most liable to be affected from this cause. It is commonly associated with writers' cramp and allied conditions, and is in all probability due to some incomplete lesion of the anterior cornual cells.

Motor.—There may be slight weakness, but spasm causing an inability to perform certain fine and complicated movements is a more constant symptom.

Sensory.—There is no loss of sensation.

Trophic.—The extent of the atrophy varies. A very noticeable feature is that the atrophy persists

even after the muscles have had a prolonged rest. It is not, however, progressive, and in time it may recover.

Electrical.—The electrical excitability is diminished equally to both the interrupted and continuous currents.

It is most liable to be mistaken for progressive muscular atrophy, but the history of over-use and the spasm leading to inability to perform certain movements, whilst other purposive actions can be carried out as before, are the most characteristic features of the disease.

Compression of the Nerve Roots.

If the anterior nerve roots which arise from the lower cervical or lumbar regions of the cord are compressed, atrophy of the corresponding muscles of the upper or lower extremities follows. As the conditions which lead to such compression may also cause compression of the spinal cord it is sometimes a little difficult to determine the exact nature of the lesion which has produced the muscular atrophy. The chief causes of compression of the nerve roots are:—

Spinal caries.
Malignant growths of the vertebræ or dura mater.
Aneurysm of the aorta.
Meningeal hæmorrhage.
Pachymeningitis.

The most important signs of compression of the nerve roots are:—

Motor.—Gradual loss of power in the muscles supplied by the affected nerve roots and painful contractions of these muscles.

Sensory.—Sharp neuralgic pains along the course of the nerve fibres and hyperæsthesia of the skin followed by the development of irregular areas of anæsthesia.

Reflexes.—In the early stages of compression the reflexes are increased, but if it is severe the corresponding reflexes are lost.

Trophic.—There is atrophy of the muscles supplied by the nerve fibres of the anterior nerve roots which are compressed. The atrophy varies in extent and rapidity according to the degree of compression.

Electrical.—If the atrophy has been slow there is progressive diminution in irritability to both the interrupted and continuous currents, but if the atrophy has been rapid, reaction of degeneration may be obtained.

Bladder and Rectum.—The bladder and rectum functions are not usually impaired unless the compression of the cord is sufficient to cause definite paraplegia.

Special Senses.—The special senses are not affected.

If the cervical nerve roots are compressed and the spinal cord is free, the weakness, atrophy, etc., will be confined to the arms, and the lesion will simulate progressive muscular atrophy, whereas if the cord is also compressed the legs exhibit weakness, rigidity, loss of sensation, increased knee-jerks, ankle-clonus, and extensor plantar reflexes, amyotrophic lateral sclerosis being simulated.

Spinal Caries.

The compression in this disease is due to tuberculous destruction of bone leading to the production of curvature and narrowing of the foramina as well as to the accumulation of inflammatory products and caseous material. It occurs more frequently in males who come from a tuberculous stock or who are suffering from tuberculous disease of some other part of the body, especially if they have received an injury to the back. It is commoner in children than it is in adults.

In addition to the above-mentioned signs of compression of the nerve roots there may be pain increased by movement, deep local tenderness, rigidity, and deformity of the spine. In the cervical region thickening of the tissues around the spine may be detected. Evidence of vertebral bone disease in early life would point to caries.

Malignant Growth of the Spine.

The vertebræ may be the seat of either primary or secondary carcinoma and sarcoma. The nerve roots are compressed as a result of destruction of the bone leading to curvature of the spine and so to narrowing of the intervertebral foramina, to the growth extending to these foramina and even to the nerve roots being invaded by the new growth. It is a rarer disease than caries.

The diagnosis may present a good deal of difficulty if there is no evidence of a tumour of the spine or of malignant growth in some other organ. If a malignant tumour has been removed by operation, and symptoms of spinal cord compression arise afterwards, the possibility of secondary deposits of malignant growth in the vertebræ would naturally be suspected. The pain is much more severe and continuous than it is in cases of caries.

Aneurysm of the Aorta.

The nerve roots may be compressed by the sac of an aortic aneurysm after they have emerged from the intervertebral foramina or as a result of erosion of the bodies of the vertebræ. The pain along the course of the nerve roots is severe. It may be difficult to distinguish this from other conditions which lead to compression of the nerve roots, but if in addition to the signs of compression there is a local bulging of the back which pulsates and over which a bruit is audible in a man who has suffered from syphilis and has been engaged in a laborious occupation the diagnosis of aneurysm is fairly obvious. The x-rays are often of great service in pointing to the correct diagnosis.

Pachymeningitis.

This is a rare and chronic disease which most frequently affects men. There are two forms :—(a) *external* when the inflammation begins outside the dura mater, and (b) *internal* when the inflammation begins within the dura mater.

In cases of internal pachymeningitis the dura mater and pia arachnoid may be united by a thick layer of inflammatory tissue measuring in some instances as much as a quarter of an inch in thickness. The nerve roots are compressed, and as the disease progresses the spinal cord may be compressed and softened as in other forms of transverse myelitis. The cervical region is most frequently involved and occasionally, but more rarely, the dorsal and lumbar regions.

The earliest symptoms are:—pain in the back and neck, probably due to irritation of the meningeal nerves, which is intensified by movements, stiffness of the neck, retraction of the head, and radiating pains of an acute, burning, darting, or neuralgic character in the nerves which are connected with the nerve roots which are compressed and irritated, hyperæsthesia, numbness, tingling and formication followed by weakness and atrophy of the muscles of the arms.

In a well-marked case of the so-called "cervical hypertrophic meningitis" (Charcot) the following points would be noted :—

Motor.—Muscular twitchings, spasms, and tremors from irritation of the nerve roots. Weakness of the hands and arms. If the spinal cord is compressed, weakness and rigidity of the legs as in amyotrophic lateral sclerosis.

Sensory.—Hyperæsthesia, numbness, tingling, formication, followed by anæsthesia.

Reflexes. — Wrist-jerks and elbow-jerks absent. Knee-jerks increased, ankle-clonus and extensor plantar reflexes if the cord is compressed.

Trophic.—Atrophy of the muscles of the hands, arms, and shoulder, especially of the flexors of the wrists and fingers, the long extension of the wrist and fingers escaping or being little affected, a condition which leads to over extension of the wrist and main-en-griffe.

Electrical.—The muscles at first give the reaction of degeneration. After two years the electrical irritability of the atrophied muscles may be entirely lost.

Bladder and Rectum.—The bladder and rectum functions are not interfered with unless there is considerable pressure on the cord when involuntary passage of urine and fæces occurs.

Special Senses.—The special senses are not involved.

When the dorsal region is affected loss of reflex action of the abdominal muscles, together with anæsthesia of the trunk, are the most important diagnostic signs of the disease.

When the lumbar region is affected, the pains, the paralysis, and the atrophy of muscles are confined to the legs, and there is early incontinence of urine and fæces. The cervical form is most likely to be mistaken for amyotrophic lateral sclerosis or syringomyelia. It is distinguished from the former by the early occurrence of the severe pains in the neck and arms which precede the onset of muscular atrophy and paralysis, and from the latter by the absence of the characteristic sensory disturbances, *i.e.*, loss of sensibility to pain, heat, and cold.

Lesions of Nerves.

Localised Neuritis.—Traumatic lesions of limbs as a result of fractures, dislocations, wounds, operations, etc., frequently implicate and injure nerves and lead to atrophy of the muscles supplied by the nerve fibres which have been thus affected. Sudden compression of nerves, *e.g.*, as a result of a fall, may bruise nerve fibres and lead to neuritis, and so also may slow and gradual compression such as may result from the use of crutches or splints or from the enlargement of a new growth or aneurysm. Exposure to cold and extension of inflammation from adjacent parts may also give rise to localised neuritis.

If a nerve or plexus of nerves has been affected as a result of any of the above-mentioned causes the following signs will be present:—

Motor.—Paresis or paralysis of the muscles supplied by the injured nerve fibres.

Sensory.—If a sensory or mixed nerve has been affected there may be partial or complete loss of sensation in the parts of the limb or body supplied by these sensory nerve fibres. There is frequently a good deal of pain, and the nerves may be tender.

Reflexes.—There is loss of reflex action in the parts affected.

Trophic.—The muscles waste and the skin becomes smooth and glossy.

Electrical.—There will be partial or complete reaction of degeneration locally in severe cases.

In cases of gradual compression the earliest symptom is hyperæsthesia which is followed later by anæsthesia, paralysis, and muscular atrophy. A careful consideration of the mode of onset and the distribution of the atrophy usually makes the diagnosis obvious.

Neuromata.

Tumours situated on the peripheral nerves, whether composed of a growth of nerve fibres or other tissues, may lead to a varying amount of damage to the nerves with which they are connected. The chief symptoms are: acute burning pain in the tumours and also in the nerves, numbness, paralysis, and atrophy of the muscles. In the case of multiple neuromata the diagnosis does not present any difficulty, a number of small tender tumours being felt beneath the skin. The affection is rare, yet there are several different types of it; all are generally included under the term Recklinghausen's disease.

(*To be continued.*)

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 430.*)

IX.

ST. THOMAS'S.

"*Bekket's Spittel.*"

St. Thomas's Hospital as a religious institution was surrendered in 1538. At that time it was a house of forty beds for poor infirm people, presided over by a Master and brethren. The latter were supported by three lay sisters, and to these pious ladies of pre-Reformation times the ward sister of to-day owes her title. In those days the hospital and its precincts, or "close," formed a distinct parish, with right of sanctuary.

In order to preserve the hospital, the City purchased it from Henry VIII., who decreed that henceforward it should be known by the name of Holy Trinity. The name seems to have been little acceptable to the people, for in the next reign, Edward VI.'s, ministers again altered the name to the King's Hospital out of compliment to the young sovereign. Even then the old name persisted on the popular tongue, till finally an adviser with a genius for compromise made the brilliant suggestion that the hospital should be known, from that time, by the name of St. Thomas, not, however, Henry II.'s "turbulent priest," but St. Thomas the Apostle! This was, after all, merely a reversion to the original dedication before Becket's day, and under this style the hospital has remained to the present time.

The medical profession, so far as it existed in Tudor times, had then but a small say in the management; for the hospitals of St. Bartholomew and of St. Thomas still resembled a third of the five Royal Hospitals, Bridewell, in adding to the secondary function of an infirmary the then more important duties of a poorhouse, casual-ward, and workhouse combined. Only shortly before 1551 did the City authorities appoint the first surgeon, and not until 1556 did Henry Bull head the list of eminent physicians who have served St. Thomas's. A list of officers in 1557 sufficiently denotes the importance attaching to the post of surgeon. The order of precedence runs thus: Clerk and Matron, then "cooke, butler, porter, shoemaker, chirurgeon, barbour, and bedle." Later, the ministrations of surgeon and physician were subjected to competition in the activities of "one to cure sore heads" appointed in 1677, a herb-woman who supplied "physical herbs," 1632, and in 1677, a bone-setter.

To a very small extent the hospital was self-supporting. Patients were made, where possible, to pay for "apothecary's stuff." The parish from which a pauper patient came was expected to contribute something like twelvepence (the present value of which would be considerably more) for his maintenance whilst in the hospital. Dues were exacted from butchers who had their stalls by the front gates, when the Borough Market was held in High Street, and the tanners who sold "calf-skynnes and hydes" there paid a percentage on their sales to the governors. Women and children were set to remunerative work which was disposed of by the Matron for the benefit of the institution. A hand-mill existed to amuse the more able-bodied and to keep them from idleness; and flax-beating, as at Bridewell, was considered a salutary pastime. Meantime, the disciplinary side of the institution was not lost sight of: the stocks and whipping-post, which had been used for the correction of refractory patients, were still standing in one of the courts down to the end of the eighteenth century. The treatment of venereal patients comprised a sound whipping before their discharge from the hospital. Church-going on Sundays was encouraged by the confiscation of delinquents' dinners. Nor were the officials exempt from wholesome discipline—not even the nursing staff. A sister, Jane Carpenter, was summarily dismissed for permitting the banns of her projected marriage with a felon (who had been branded in the hand) to be published in church. In 1570 another sister, Joan Thornton, for some misdemeanour received "xii. strypes, well layd on." We are informed that the nurse of to-day receives her "stripes" with equanimity.

The City had received the hospital of Holy Trinity from the King in so ruinous and neglected a condition that in 1552 some thousand or more pounds (an enormous sum for those days) were necessary to be spent on its repair before it was in a fit state to receive its first 220 inmates, blind, maimed, sick, and helpless. In the year following, the Court of Aldermen appointed three aldermen and three commoners to supervise the administration. Contributions soon fell off, and a general appeal became necessary.

Although the institution was the property of the City, royal patronage was still exercised, although occasionally after an embarrassing fashion. Queen Elizabeth in 1579 commanded that an "almsman" was to be admitted to have room with suite and allowance in the hospital. Charles I. caused Enoch Bostock to be appointed to the surgical staff, and Oliver Cromwell followed suit with Barth Lavender and Thomas Crutchley. Even Bradshaw and Fairfax, under the Commonwealth, managed to place their nominees on the hospital staff. Still, Fairfax's *protégé*, Thomas Warton, justified his appointment, for he and one colleague, Edward Rice, alone remained on duty during the time of the plague.

Hospital administration appears to have fallen on somewhat free-and-easy times, for the Governors seem to have indulged themselves with occasional relaxations on hospital funds, as, for instance, a little dinner in 1682 at the Amsterdam Coffeehouse in Bartholomew Lane.

By 1694 the hospital, by reason of the losses occasioned by the destruction of the properties in the great fires of 1666 and 1676, had again fallen into a state of poverty, and the building itself was old, low, and damp. A public appeal was made, therefore, and a list was published of those Governors who had subscribed to the funds, and, in addition, another list of those who had not!

A large sum was raised by this means and the scheme of rebuilding was begun and lasted down to the year 1732. Dr. Benjamin Golding, the historian of St. Thomas's (1819), says that the white stone pilasters afforded a pleasing contrast to the red brick of the building, which bore "a striking similitude to an agreeable private mansion." It was, in fact, a modest example of the Palladian architecture of the period, described by Pope:—

"*On some patch'd dog hole ek'd with ends of wall*
Then clap four slices of pilaster on't
That lac'd with bits of rustic makes a front."

The building, says Golding, was constructed on a magnificent scale, and the ground it covered was equal in space to the whole extent of St. Thomas's Street reaching from the Broad Way to the Borough High Street.

The three wards forming the southern side of the front court were "erected at the charge of Thomas Frederick, of London, Esquire, a worthy governor and liberal benefactor to this hospital, anno 1708." We shall return to this quadrangle later in considering the extent of Thomas Guy's benefactions to this hospital.

In the second, "King Edward's" court, to the south was the parish church; to the north, the hospital chapel; to the east, the Hall (or Court Room) "elevated on Tuscan columns"; and houses for the Preacher, Treasurer, Steward, Cook, Butler, and Accomptant. The square took its name from Scheemaker's fine brass statue of King Edward VI., "a most excellent Prince, of exemplary Piety and Wisdom above his years; the glory and ornament of his age, and most munificent founder of this hospital." It was erected in 1737 at the expense of Charles Joye, Esq., for some time treasurer to the two Southwark hospitals.

The third and oldest of the three courts was named Clayton Court from the benefactor whose statue adorned it. He was satirised under the name of Ishban in Tate's continuation of the "Absalom and Achitopel" of John Dryden.

"*Ishban, of conscience suited to his trade*
As good a saint as usurer ever made.
. . . his dear sedition he'd forswear
And e'en turn loyal to be made a peer."

We merely venture to contrast a commentator's note with the judgment expressed upon his monument by his hospital contemporaries:—

"Sir Robert Clayton, an alderman of this city and one of its members, who remarkably opposed the court. Though he was very avaricious he had offered a large sum to be made a peer, and those who consider the King's (Charles II.'s) wants will believe with me, he was sorry the alderman's money was not tangible."

He was Lord Mayor in 1680, "*That year in which the city he did sway He left rebellion in a hopeful way.*"

The inscription on the monument, however, tells another tale—

"To Sir Robert Clayton, Knight, born in Northamptonshire, citizen and Lord Mayor of London, president of this hospital and vice-president of the new workhouse and a bountiful benefactor to it; a just magistrate and a brave defender of the liberty and religion of his country. Who (besides many other instances of charity to the poor) built the girls' ward in Christ's Hospital, gave first toward the re-building of this house £600 and left by his will £2,300 to the poor of it. This statue was erected in his lifetime by the governors, AN. DOM. MDCCI. as a monument of their esteem of so much worth; and to preserve his memory after death was by them beautified. ANNO DOM. MDCCXVI."

Beyond Clayton's Court, was built in 1717 "a small oblong square" (the words are Golding's) in which were placed the wards for salivation, Lazarus and Susannah, and a ward of seven beds, called the Cutting ward, where the operation for cutting for stone was performed. In this was also *the Surgery and Bagnio* (bath), *the Theatre, and Dead House, where the dead bodies are preserved safe till they are interred in an adjoining churchyard.* At a later date there were "four wards for unclean patients, the first occupied by the immodest women and the remaining three for men of the same character. This was the first (general) hospital in London that had wards in it expressly for syphilitic patients." Before the creation of these wards such patients were transferred to the Loke in Kent Street.

The names of the wards seem frequently to have been changed in the history of St. Thomas's. In 1658 they were known as King's, Jonas (or Jonah), Queen's, Magdalen, Abram (or Abraham), Isaiah, Aaron, Dorcas, Job, Judith, Zebedee, and Noah. By 1693 Isaiah, Aaron, Judith, and Zebedee had disappeared from the list, and had been replaced by Cooke, Tobias, Isaac, Jacob, Lazarus, Susanna, and Abdiel. In 1717 Job, Naples, and Magdalen were built in the

back court. Guy's own three wards in the front quadrangle were known as Lydia, Queen's, and Dorcas, and it is pleasant to think that all these names are represented with us to-day, although Queen ward is a relatively modern innovation. In 1737, at the completion of the new buildings, many of the old names were dropped in favour of those of royal patrons, and the list then read Lydia, Queen, Dorcas, *Ann, Mary, Elizabeth,* Luke, *Henry, William, Edward,* King's, Jacob, Abraham, *George,* Isaac, Magdalen, Naples, Job, and Lazarus. This fashion has been revived in the St. Thomas's of to-day, where *Edward, Albert, Arthur, George, Leopold, Victoria, Alexandria,* and *Adelaide,* as well as *Clayton* (Sir Robert), *Florence* (Nightingale), and *City of London* wards have ousted the old biblical names.

The fabric remained, with but slight alterations, throughout the eighteenth century. Golding notes that "the range of houses belonging to the hospital which lately constituted a part of St. Thomas's Street has been removed, and some convenient offices have been substituted in its place."

At the rebuilding of London Bridge, the change in the line of the roadway necessitated considerable alterations. Much of the front quadrangle was removed, including Thomas Guy's iron gates and the greater part of his three wards to the north and of those built by Thomas Frederick on the south side. In their place were erected the two tall stone wings, of which the southernmost survives to-day as the Parcels Post depôt visible from Denman Street and from High Street above the present post-office.

To-day the palatial hospital in Lambeth preserves few architectural relics from the old institution in Southwark. Scheemaker's beautiful little statue stands in the garden nearest to Westminster Bridge. The older weatherbeaten effigy of Edward VI. in stone looks over the river, and the four figures of cripples that used to surround it on the facade facing the Borough High Street are now grouped on either side of the main entrance. Clayton's statue is at the farthest extremity of the hospital grounds; its surface appears to have been re-worked of late.

The Court Room contains, among other pictures, portraits of Edward VI., William III. and Queen Mary, Sir Robert Clayton, Sir Gilbert Heathcote, Sir Gerard Conyers, Sir John Eyles, and Sir James Campbell. But there is no memorial of Guy.

(*To be continued.*)

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the Gazette *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

The Artist in the Park.

Not a few readers of the Gazette will doubtless remember having observed, during the earlier months of the present year, an artist sedulously employed in sketching various aspects of the hospital buildings. The more inquisitive may have ventured to satisfy their curiosity (or their artistic longings) by supra-humeral peeps and passing glances; while the more respectful probably kept their distance, hoping for some future opportunity for inspecting the finished products. Their hopes are shortly to be realised.

Of previous pictures of Guy's Hospital, other than the older prints, two only are really well known. One is of the front quadrangle, and was executed by Miss Pott, and the other of Clinical roof and the Medical Buildings by William Hyde. Both are good, but both will, we think, find rivals in the drawings for which "the artist in the Park"—Mr. Hanslip Fletcher—is responsible. Mr. Fletcher, the illustrator of "London—Passed and Passing," and other volumes, has executed a beautiful series of eight pictures of the hospital from various points of view. Of these we have, through the courtesy of his publishers, W. H. Beynon & Co., of Cheltenham, received artist-signed proofs (collotype), and difficult indeed it is to find fault with them. No branch of criticism demands more highly specialised qualifications than that which deals with things artistic, and recognising this we shall attempt a short descriptive catalogue, rather than a critical survey, of Mr. Fletcher's work.

Taking the plates as they come to hand, the first—"Gateway and Quadrangle"—is undoubtedly one of the best. The sketch was obviously made from a higher altitude than Miss Pott's somewhat similar drawing, aud gains a certain advantage thereby. We note with pleasure that the artist has refused to bow absolutely to accuracy. In this drawing the more picturesque brougham takes the place of the more usual vehicle of to-day.

In the second—"Chapel"—Mr. Fletcher has achieved an excellent interior, with Bartolozzi's beautiful group occupying a central position.

The third will commend itself to all Guy's men, not merely as a fine study of old Borough roof-tops and a favourable aspect of our stolid tower, but also for its inclusion of the famous "Ship and Shovel," which has given its name to the picture.

The fourth represents "Clinical and the Dental School," and has in the foreground the Colonnade steps with some of their *habitués* in customary attitudes.

The fifth and sixth are, perhaps, the two best of the series. The fifth—"The Colonnade"—depicts the view from the lateral quadrangle on the Astley Cooper side, and is a most happy study of lights and shades. We had not fully realised hitherto the beautiful simplicity of the arches that flank the Colonnade. The attendant figures are all superbly characteristic. The sixth—

"Medical Wards and College from Maze Pond"—is a magnificent piece of drawing, and savours somewhat of all that was excellent in last century engravings.

We feel very grateful to Mr. Fletcher for this study of the Hospital tower. Not until we did "extern" and saw it outlined against the early morning sky, did we properly appreciate the severe beauty of this somewhat maligned structure.

"The Balcony of Martha Ward and Trees in Springtime" ranks next in our estimation to the preceding two. The last—"Clinical and Medical Wards from the Park"—fails somewhat in respect of its trees, which fall short considerably of the standard set in the other drawings.

In regard to all his pictures, we should like to congratulate Mr. Fletcher on his fine combination of accuracy and artistry; on his skill in the representation of the casual figures which constitutes one of the main features of the series; and on his admirable groupings and selection of view-points. His publishers are to be congratulated on the excellence of the reproductions, and Guy's on the acquirement of so valuable an addition to its picture gallery.

NOTE.—Copies of the pictures reviewed above will shortly be on view in the Library, and at a slightly later date will be obtainable there at the following prices:—For the whole set of eight, 31s. 6d.; for separate plates, 5s. each. Messrs. Beynon & Co., the Publishers, also announce that they can supply oak frames at 3s. 6d., and tasteful enamelled shields bearing the Hospital arms, at 2s. 6d.

Guy's Hospital Students Club.

Dr. HALE WHITE, President.

NOTICE.

On November 6th, Lieut. H. T. C. Knox, of the Navy League, will deliver an address, illustrated by Lantern Slides, entitled "The British Navy, and Foreign Warships and Dockyards." The meeting will be held in the Smoking Room, at 8 p.m. Coffee will be served in the College Dining Hall afterwards. T. B. LAYTON, Hon. Sec.

Royal Army Medical Corps.

ENTRANCE EXAMINATION.

An examination for not less than 20 commissions in the Royal Army Medical Corps will be held on the 22nd January, 1913, and following days. Applications to compete should be made to the Secretary, War Office, not later than 13th January, 1913. The presence of candidates will be required in London from the 20th January, 1913.

A copy of the Regulations for admission to the Royal Army Medical Corps and a form of application can be obtained on application to the Secretary, War Office.

Nursing News.

MATRON'S OFFICE.

Sister Evelyn, Miss Densham, Assistant Matron since May, 1911, left the Hospital on October 10th; and Miss M. A. D. Collingwood, Sister of Bright Ward from May, 1910, to November, 1911, was appointed to succed her as Assistant Matron. Miss Densham, who has been Sister at Guy's since 1905, left England on October 21st, for a holiday in South Africa. Before leaving the Hospital, Sister Evelyn was made the recipient of the following gifts:—from the Sisters, a pair of Opera Glasses; from the Nurses, a Gold Watch Bracelet.

On September 6th, Probationer Pike was appointed Head Nurse in the Eye Wards.

On September 9th, Nurse M. Brooks, Head Nurse in Queen Ward, left the Hospital on completion of her three years' training. Nurse Greaves, Head Nurse in Astley Cooper ward, was transferred to Queen as Head Nurse, and Probationer S. Simpson became Head Nurse in Astley Cooper.

On September 16th, Probationer Foxon was appointed Head Nurse in Victoria ward.

On September 18th, Nurse Colston was appointed Head Nurse in Stephen ward.

On September 21st, Nurse Lay, Head Nurse in Patience and Samaritan wards, left the Hospital on completion of her three years' training, to take up her duties on the Private Nursing Staff, and Probationer Willett succeeded her as Head Nurse in Patience and Samaritan wards.

On September 20th, Nurse Yeoman left the Hospital on completion of her three years' training, and took up her duties on the Private Nursing Staff.

On September 26th, Nurse Shann left the Hospital on completion of her three years' training, and Probationer Maughan succeeded her as Head Nurse in Bright ward.

On September 26th, Nurse Lane left the Hospital on completion of her three years' training, and has been appointed Sister at the Royal South Hants Hospital, Southampton; Nurse J. Pearson succeeded her as Head Nurse in Stephen ward.

On September 28th, Nurse Strange left the Hospital on completion of her three years' training, and Probationer B. Evans was appointed to succeed her as Head Nurse in Job ward.

On September 28th, Nurse A. Phillips, Head Nurse in Cornelius ward, left the Hospital on completion of her three years' training, and Nurse B. Johnson was transferred from the Theatres to Cornelius ward.

On September 28th, Nurse Thomas, Head Nurse in Naaman ward, left the Hospital on completion of her three years' training and Probationer M. Hughes was appointed to succeed her as Head Nurse.

On October 5th, Nurse Greaves left the Hospital on completion of her three years' training, to take up her duties on the Private Nursing Staff, and Probationer G. Fletcher was appointed to succed her as Head Nurse in Queen ward.

On October 5th, Nurse Stretton, Head Nurse in Astley Cooper, left the Hospital on completion of her three years' training, to take up her duties on the Leeds' Trained Nurses' Institution.

On October 5th, Probationer F. Davis was appointed Head Nurse in the Surgery on night duty.

On October 8th, Nurse Bourdillon left the Hospital on completion of her three years' training.

Appointments.

Naval and Military.

Staff-Surgeon G. Nunn, R.N., to the *Shearwater*, on re-commissioning.

Major J. C. B. Statham, R.A.M.C., has vacated his appointment in the London District, and embarked for Sierra Leone.

Major S. H. Burnett, M.B., I.M.S., has been promoted Lieut.-Colonel, 27th July, 1912.

Major G. T. Birdwood, M.D., I.M.S., Civil Surgeon, Lucknow, has been appointed to hold Medical Charge at Rae Bareli District, during the absence of Captain J. C. Cameron on duty.

Captain H. O. M. Beadnell, R.A.M.C., has been transferred from Chester to Trawsfynydd.

Captain C. F. Fraser, I.M.S., has been appointed to Substantive Medical Charge of 108th Infantry.

Captain S. L. Pallant, R.A.M.C., has been appointed to Medical Charge, Wedgnock Park, on transfer from Royal Victoria Hospital, Netley.

Territorial Force.

Notts and Derby Mounted Brigade Field Ambulance, R.A.M.C., Lieutenant A. M. Webber resigns his commission, October 12th, 1912.

Civil.

A. H. Godson, M.B. Cantab., F.R.C.S., has been appointed Medical Referee for County Court Circuit, No. 5 (Oldham County Court).

M. M. Munden, M.R.C.S., L.R.C.P., has been appointed District Medical Officer, Cirencester Union.

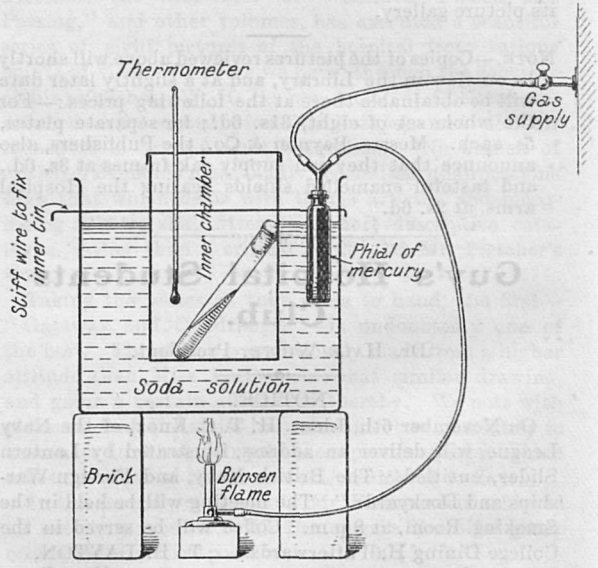
R. Serjeant, M.R.C.S., L.R.C.P., has been appointed District Medical Officer, Brentford Union.

V. Townrow, M.B., B.S., F.R.C.S., has been appointed Hon. Assist. Surgeon, Sheffield Royal Hospital.

A Home-made Bacteriological Incubator.

I am interested in Dr. Gair's note on a new form of bacteriological incubator in the Guy's Gazette, October 12th, and in this connection would like to describe a cheap and efficient home-made incubator which I first evolved in 1897, when resident at St. Mary's Hospital for Women and Children, Plaistow, E., and have used at intervals and for varying periods since.

It consists of a biscuit-tin raised on four bricks, with a smaller tin suspended in it by two pieces of stiff wire which perforate the walls of both, the lid of the inner tin being pierced for the reception of a thermometer; the outer tin has no lid. The space between the two tins is occupied by soda solution to minimise rust.



A Bunsen burner is placed under the whole and the gas tube to it is led from the supply over a column of mercury, contained in a ʒii. phial with a Y-shaped tube let in through the cork. This phial is suspended in the soda solution, and forms the gas regulator by expansion and contraction of the mercury. By adding or subtracting mercury any given temperature can be maintained, and I have kept it sufficiently constant to hatch a hen's egg in the inner chamber. The only attention required is the addition of water to replace that which evaporates. I enclose a diagram.

W. W. FARNFIELD.

Pupils' Physical Society.

A Pathological Meeting of the above Society was held on Saturday, October 12th, in the Wills Library. Mr. E. D. Scott occupied the chair.

The following specimens were shown:—

1. Growth of Lung. Mr. E. S. Taylor.
2. Accidental Amputation of Leg. Mr. York Moore.
3. Secondary Deposits in Brain. Dr. W. Johnson.
4. Microcephalic Brain. Dr. W. Johnson.
5. Fracture of First Rib. Mr. F. Bevan-Brown.
6. Spleen from a Case of Leukæmia. Mr. C. R. Smith.
7. Growth of Brain. Mr. H. C. Godding.
8. Growth of Dura Mater. Mr. H. C. Godding.

The following gentlemen took part in the subsequent discussion:— The President, Messrs. Gatley, McNair, Maxted, Edmond, Tanner, Reynell, Taylor, Miller, Kemp, Dr. Johnson, and the junior Hon. Sec.

The President announced that the subject chosen for the Treasurer's Prize Essay was "The Causes and Significance of Vertigo." Essays, which should be received by the Hon. Secs. on or before March 12th, 1913, must be accompanied by the author's name in a sealed envelope bearing a motto.

Dr. Pitt has kindly consented to act as judge.

Change of Address.

H. R. C. Butler. L.D.S., from The Firs, Dawlish, to Holly Lodge, Tiverton.

C. P. Creed, L.R.C.P. Edin., M.R.C.S., from 77 to 58, Parkwood Road, Boscombe, Bournemouth.

A. H. Crook, M.C., F.R.C.S., from Overstrand, Shanklin, to 20, Gildredge Road, Eastbourne.

A. L. George, M.R.C.S., L.R.C.P., L.D.S., from Wickhambrook, near Newmarket, to Colonial Hospital, Port of Spain, Trinidad.

H. V. Gibbons, L.D.S., from 28, West Southernhay, Exeter, to 21, Orchard Gardens, Teignmouth.

F. Hazell, M.B., B.S., from 61, Erleigh Road, Reading, to 1, Bouquet Street, Cape Town, S.A.

G. McGregor, M.R.C.S., L.R.C.P., from Leafmore, Hill Brow, East Liss, to 2, Brading Avenue, Eastern Parade, Southsea.

A. Stanley Morgan, L.D.S., to Worcester, Cape of Good Hope.

G. Bruce Pearson, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glas., from The Cottage, to Hamilton, West Street, Buckingham. (Teleph. 16 Buckingham.)

H. W. Pigeon, M.A., M.C., F.R.C.S., from 6 to 13, Albion Street, Hull.

E. L. Pilbeam, L.D.S., from R.N. Barracks, Chatham, to R.N. Barracks, Shotley, near Harwich.

F. Richmond. B.A., M.B., B.C., from Belmont House, Thrapston, to East Dereham, Norfolk.

H. Gordon Spain, L.D.S., from 1, Burlington Gardens, W., to 42, Harley Street, W.

W. A. G. Stevens, L.S.A., from Holmhurst, Belvedere, to c/o Union-Castle s.s. Company, 3 & 4, Fenchurch Street, E.C.

E. S. Tresidder, M.R.C.S., L.R.C.P., to 2, Rope Walk, Nottingham. (Teleph. 705.)

V. Townrow, M.B., F.R.C.S., from Guy's Hospital to 344, Glossop Road, Sheffield.

Frederic Vicars, M.D., from London to Calle de las Mercedes, Las Arenas, Bilbao, Spain.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

Sport.

Rugby Football.

GUY'S v. W. C. S. OLD BOYS.

This match took place at Honor Oak Park on Saturday, October 19th, before a very good crowd of spectators. It was an easy win and a game which did very little good to the hospital team in view of the more serious part of the programme of fixtures that have to be negotiated shortly. For some seasons the Old Boys have not been able to make a very good game of the fixture. In 1908 they were defeated by 36 points to nil; 1909, 59 to nil; 1910, 56 to nil: last year's score I am not quite sure of. Saturday's total against them was the least for some time, viz., 33—0, but this would have been higher had Kennedy put either Stokes or Medlock on to all the tries. He let various players attempt the goal kicks. It is a pity, in view of these totals, to keep the fixture on the card.

Scarcely had the game commenced when Gibb badly wrenched his knee. It is a most unfortunate accident, as Gibb was showing great promise. One hopes he may not be incapacitated for very long, but all the same the injury appeared a serious one.

In the first half of the game Stokes, Stranack, and Medlock gained tries, in the order named. Two were converted, so that at half-time the total was 13 to nil in Guy's favour. The game needs but little detailing. The defence was very weak, in fact, it was rather surprising that tries were not more numerous. Several of the visiting pack tried manfully to put a better complexion on the game, but their efforts were not successful. In quick succession Stokes got two tries; Stranack, A. W. A. Davies, Stokes again, and J. E. Davies got over, but only one was majorised. Thus the Hospital won by 3 goals 6 tries to nil. Team:—

Guy's.—A. H. Harkness (back); H. Millett, E. C. Nicholls, A. L. Stokes, V. H. Curle (three-quarters):

J. E. Davies, C. H. Medlock (halves); R. S. Kennedy, W. S. Stranack, O. Parry-Jones, A. W. A. Davies, A. L. Anthony, A. S. Liebson, C. Gibb, H. P. Whitworth (forwards).

Hockey.

SEASON, 1912–1913.

The Annual General Meeting of the Hockey Club was held on Wednesday, October 2nd, at 1 p.m. in Charity's Room, by kind permission of Mr. A. S. Roe.

In the regrettable, but unavoidable, absence of Mr. Steward (the President), the chair was kindly taken by the captain, O. G. Morgan. The attendance from the point of view of numbers was not all that could be desired, but we were glad to welcome some new members.

Business was then proceeded with, the first duties being the election of officers for the forthcoming season. The resulting elections were as follows:—President: Mr. Steward was re-elected unanimously. Vice-Presidents: Mr. Fagge and Mr. Ormond were re-elected unanimously. Captain: L. A. Graham was elected captain.

It was then suggested that the old regulations providing a Vice-Captain and a Committee should again be brought into force. This course was adopted, and resulted in the following officers being elected:—Vice-Captain: R. C. Matson. Committee: J. F. Venables, T. H. Parry, H. L. Peregrine. The duties of Hon. Secretary and Treasurer are to be shared by T. H. Parry and H. N. Purdom. This concluded the election of officers. The next business was that of arranging for a new ground for this season. The rent of last year's ground having been raised, and the ground in many ways being unsatisfactory, the Hon. Secretary announced that he had been in communication with St. George's Hospital, by consent of the Councils of the Club's Union concerned, with regard to sharing a ground at Raynes Park. Unfortunately on inspection the ground proved unsuitable. It is hoped that some definite plans may materialise in the near future.

The Hon. Secretary announced that a fairly long fixture card had been prepared, which included the names of many clubs which we had not yet had the pleasure of playing. It was also agreed to have official cards printed on which to post the names of the members playing in the respective matches.

The meeting then concluded with a vote of thanks to Mr. Morgan for occupying the chair.

The Hospital First XI. opened their season with a match against Brockley First XI. at Blackheath. Unfortunately seven of last year's inter-hospital team were absent. Happily only two of these, A. Birks and G. Y. Thompson have left the hospital. Graham (this season's captain) Morgan, Venables, and Peregrine will be playing later on, and Bulleid is still available. The hospital team was as follows:—

A. B. Bond (goal); R. C. Matson, G. D. Gripper (backs); C. R. Smith, — Jackson, H. N. Purdom (halves); A. Jones, C. Vincent-Brown, E. P. Poulton, T. H. Parry, J. N. Martin (forwards).

The game was fast and very evenly contested, but both teams suffered from lack of shooting ability. At half-time no score had resulted, and it was only in the last ten minutes that Brockley managed to score twice. The first goal was owing to a back's mistake which brought Bond out of goal and left no opposition to the opposing centre forward who ran through. The second was the result of a good shot which Bond could not see owing to the goal mouth being crowded.

Guy's thus lost a very interesting game by 0—2, but were rather unfortunate, as they had quite as much of the game as their opponents. The shooting was very poor. Poulton shot over the cross bar twice. Parry could not shoot at all, though there were several opportunities for the forwards. Those shots which were in the right direction were very cleverly cleared by the opposing goalkeeper who, with the centre half and right inside, were about the best of a strong team. Guy's obviously were very much out of practice, and several members of the team were quite "played out" owing to the pace of the game. Poulton was, perhaps, the best of the forwards, but Martin and Vincent-Brown both showed good promise. Jackson, however, was the best of the new players. He played a very clever and energetic game. Gripper at back was also very sound. Bond played well in goal, and cannot be blamed for either of the two goals scored against him.

Birth.

FOTHERGILL.—On October 2nd, at Hensol, Chorley Wood, Herts, the wife (*née* Gell) of Dr. Claud F. Forthergill of a daughter.

Marriage.

MOYLE—DARNELL.—On October 2nd, at St. George's, Camberley, Surrey, Henley Hambyn Moyle, M.R.C.S., L.R.C.P., of Henstridge, Somerset, to Alice Thorp Darnell, youngest daughter of the late Rev. Chas. Thorp Darnell, of Belford, Northumberland, and Mrs. S. P. F. Freeth, Camberley.

Death.

DURANT.—On October 11th, at Matjesfontein, South Africa, after a long illness, Archibald R. Durant, L.D.S. Eng., aged 32 years. (By cable.)

Ed.—J. A. R.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 636.] NOVEMBER 9, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	449–451
Change of Address	451
The Royal Society of Medicine, Odontological Section...	451
Cause and Treatment of certain Cases of Neurasthenia	452–455
Medical School Notices	455
Muscular Atrophy. Clinical Lecture by Dr. Herbert French (*concluded*)	456–460
London Bridge and the Borough in the Eighteenth Century (*continued*)	461–464
Correspondence	464
Pass List	465
Guy's Hospital Dental Society	465
Pupils' Physical Society	465
Appointments	465–466
Papers by Guy's Men	466
Golfing Society	466
Sport	466–468

Passim.

IN a note appearing in a recent issue of the *British Medical Journal*, and entitled "The Waste of Medical Experience," a lament was made over the scarcity of medical chronicles hailing from the pen of the general practitioner. There is, indeed, a very serious gap in the literature of our profession, for which the general practitioner must in part be held responsible; and although, when we pause to consider the conditions of his existence, we cannot help but forgive him for his failure as a contributor, we would at the same time remind him of the great loss which Medicine sustains as the result of his silence. In the course of a few years of private practice a considerable quantity, and in the course of a quarter or half of a century a very vast quantity, of extremely varied material must pass through his hands—much of it commonplace, like the gravel of the gold-seeker, but yet producing from time to time a nugget or two, and seldom even in itself entirely useless. His type of experience is more valuable than other types of medical experience in many respects and for many reasons. It is concerned rather with wide vistas of health and disease than with investigations of special aspects. To the general practitioner alone, of all in his profession, falls the opportunity of watching the life-chart of an individual from the moment of his birth until his death. He alone has the chance of achieving a proper study of mankind.

With the writer of the article cited, we feel moved to exclaim "What would we not give . . . . for the experience of a man who had been in general practice for half a century, who had seen many whom he had brought into the world grow up and in their turn become parents and then pass away, all the time under his observation!" But he continues, "Such men seldom have time to write down what they see and what their practice has taught them. Often, too, they have not the faculty of exposition. They are like the inarticulate poets who die 'with all their music in them.'"

The lack of time is, we suppose, the most serious obstacle to the keeping of records, and various other difficulties must, in many cases, prevent the further possibility of their publication. Diffidence, weariness, and absence of inclination may be included among the other culpable causes of this failure to chronicle experiences. Some men feel that the forced incompleteness of their observations, such, for example, as arises from the impossibility of verification by post-mortem inquiry, is sufficient to render their records valueless. But, paradoxical though it may seem, we would urge that their value often lies in their very incompleteness, in so far as the latter provides food for wise speculation and discussion, and makes of diagnosis a refined art rather than a material science.

And usually too, be it remembered, the practitioner's diagnosis and the scientific bye-paths, which he may chance to tread, are to be considered secondarily to his observations concerning treatment and to his experience as a counsellor of sanity.

To students most of all we feel, might a general practitioner's written experiences prove invaluable. Here in Hospital the student attends clinical lectures by consultants, and cliniques conducted by specialists; dabbles in pathological and bacteriological problems; sees special cases, and learns special methods of investigation, and is dazzled continually by the glamour of advanced surgery—and yet at the end of it all, the odds are very much in favour of his becoming an ordinary general practitioner, which does not, by any means, imply becoming an ordinary man.

Bearing these things in mind we here make a proposal, which we would earnestly ask all those men of Guy's who have gone out into the world as G.P.'s seriously to consider. We would suggest that they should—for the benefit of medicine and the future members of their profession, and for their own intellectual satisfaction—not "die with all their *medicine* in them," but should henceforth make a point of contributing, systematically if possible, or at any rate spasmodically, to the columns of the GAZETTE, notes, articles, essays, or lectures concerning the work they do, and their gleanings by the way. We grow weary sometims of "the Clinical Lecture," "A Case from Out-patients," and all the usual local contributions; and it is for this reason partly, but still more because we desire to see that gap in medical literature, to which we have previously alluded, efficiently filled, that we proffer this sugestion. Might it not, some day, prove possible for a volume of Collected Experiences, having its origin in Guy's, to constitute the nucleus and attraction sphere of the series, that is to supply the empty shelf in the library of our profession?

EVENTS in the Balkan War are so rapid and astounding in their progress, that it is scarcely safe to venture upon either prediction or review. We can, however, unfortunately assume with some degree of certainty that the numbers of killed and wounded are already enormous, and that the various Red Cross and Red Crescent contingents must, in consequence, be overwhelmed with work. Miss Durham, we understand, is now unselfishly devoting the whole of her time and energies to the organisation and actual administration of hospital relief in Montenegro. The GAZETTE has at present three Special Correspondents at the seat of war, one with the Greek forces, and two with the Montenegrins; but whether as the result of the censorship or of their own arduous employment (for all three have gone out in the primary capacity of dressers), no communications have as yet been forwarded. We await with interest the first account of their experiences.

WE are able to announce that the Hospital Ball was an unqualified success, and take this opportunity of congratulating the organisers on the triumphal result of their labours. Their work was by no means easy work, and for that reason their achievement is the more commendable. The popularity of this function seems to be steadily on the increase. Some time before the closing date it was found necessary to raise the price of the tickets; and we learn that, if there was one criticism to be made of the evening—which otherwise passed without a hitch—it was that there were rather too many couples present. We have it from the lips of one dancing man at least that the Guy's Ball is the best in London.

THE sustained animosity of the Southwark Guardians, which is directed against Guy's, has recently undergone another exacerbation. The House Committee have issued a reply to the charges, in the course of which the continued failure of the Guardians to make good their own deficiencies is abundantly made manifest. The letter concludes with the following poignant paragraph:—

> "With these evidences of their own defective arrangements again brought to their knowledge, it may be hoped that the Guardians of Southwark will take steps to put their own house in order, for assuredly in the minds of all thinking men and women, whatever of 'scandal and disgrace to South-East London' attaches to these unhappy incidents lies at their door, and not with the Governors of this hospital."

We understand that the Guardians are now in communication with the Local Government Board, and sincerely trust that that body may prevail upon them to effect early readjustments and reforms in an unsatisfactory system. For by such means alone will it be possible to minimise difficulties and disputes, and to generate in Southwark that atmosphere of mutual respect and generosity which is so urgently needed.

As we go to press we are informed that The Clinicals' Book, which disappeared some time ago, still remains undiscovered. The volume is one of extreme, if purely local, value, and its loss would be quite irreparable. It contains the records of numerous generations of Clinicals, and is further amply and artistically illustrated by many master hands. The contributions of Mr. Wingent alone are worth the weight of the volume in gold. We cannot conceive of its being to anyone's advantage to appropriate or conceal the book, and therefore—on behalf of the Clinicals, past, present, and future, and all others in any way concerned—we hasten to make an appeal for its prompt return.

J. A. R.

Change of Address.

M. M. Adams, M.B., B.S., from Gravesend, to Sunnydene, 900, Schœman Street, Pretoria, Transvaal.

R. Westmore Allen, L.D.S., from 83, Sandgate Road, to 23, Manor Road, Folkestone.

Lieut. G. A. Blake, M.B., B.S., R.A.M.C., from R.A.M. College, Milbank, to McGrigor Barracks, Aldershot.

D. Arwyn Davies, M.R.C.S., L.R.C.P., from Guy's Hospital to West Herts Hospital, Hemel Hempstead, Herts.

W. H. Edmonds, L.D.S., from 9, Old Road West to 195, Parrock Street, Gravesend.

B. Jones, M.D., J.P., from Avenue Gate, Ansdell, Lytham, to 33, Florence Road, Boscombe, Bournemouth.

H. A. Latimer, M.D., from 164, St. Helen's Road, Swansea, to Trengweath, Molyneux Park, Tunbridge Wells.

O. Moll, L.M.S.S.A., from 41, Gilford Road, Deal, to 28, Jeffrey Street, Gillingham, Kent.

W. T. Chaning-Pearce, M.R.C.S., L.R.C.P., from West London Hospital to Montague House, East Cliff, Ramsgate.

(The Editor will be very glad to receive a postcard with notes of any change of address.)

The Royal Society of Medicine.

(ODONTOLOGICAL SECTION.)

REGULATIONS FOR GRANTS IN AID OF SCIENTIFIC RESEARCH.

1. That the grants exist for the furtherance of scientific research in connection with dentistry.

2. That all grants shall expire on May 1st next following the date on which they are made, when a statement of expenditure shall be forwarded to the Hon. Secretary, 1, Wimpole Street, W.

3. That no part of any grant shall be applied in payment of personal expenses in connection with the research for which the grant has been made, unless a resolution to that effect has been duly passed by the Committee. Every recipient of a grant shall be deemed to have notice of these rules.

4. That when the whole of the expense of the enquiry has been provided by the Committee the result of the investigation shall be the property of the Odontological Section of the Royal Society of Medicine.

In any case in which the author desires to publish a report of work done under a grant from the Committee, elsewhere than in the Transactions of the Society, it shall be a condition of the grant that the permission of the Committee be first obtained, and the following note be affixed to the published report:—

*** Towards the expenses of this research a grant was made by the Odontological Section of the Royal Society of Medicine.

5. That apparatus purchased with the grant shall be the property of the Royal Society of Medicine, and be returned at the expiration of the grant, unless the Committee shall otherwise determine.

6. That a report shall be furnished to the Committee by the recipient of the grant (or an interim report if the object of the grant be not then attained) on April 20th, following the allotment, containing:—

(*a*) A brief statement for the report of the Scientific Grants Committee, showing the results arrived at or the stage which the enquiry has reached.

(*b*) A general statement of the expenditure incurred, accompanied so far as is possible, by vouchers.

(*c*) A list of the instruments, specimens, etc., purchased or obtained out of the grant or supplied by the Committee, which are still in the possession of the recipient.

(*d*) Reference to any Transactions, Journals, or other publications in which the results of the Research have been printed.

(*e*) If a renewal be desired an application should be sent at the same time.

Cause and Treatment of certain Cases of Neurasthenia.

(Preliminary Communication).

Being a Paper read in the Section of Medicine at the Annual Meeting of the British Medical Association, Liverpool, July, 1912.

By FRANCIS W. BROOK, M.R.C.S., L.R.C.P., Late House Surgeon, Guy's Hospital, London.

It has long been suspected that certain cases of neurasthenia were due to autointoxication, but so far there has been no definite proof of this theory. In a recent paper Professor Bernheim stated his belief that the true neurasthenias are invariably of an autotoxic origin. In the discussion following, Professor Forel said: "It is pure hypothesis until the microbe or toxin has been discovered. Such assertions are wholly in the air." I hope in this preliminary communication to suggest to you that, at any rate in certain cases, the autointoxication theory is something more than a mere assumption.

Having adopted as a working hypothesis the theory that a large number of cases of neurasthenia were due to the absorption of toxic material from the intestinal canal, I decided upon a systematic examination of the fæces in every case subsequently encountered. The observations of the bacteriological department at Guy's Hospital show that when emulsions of fæces from normal individuals are sown upon plates of nutrose agar (Eyre), the resulting growth consists of *B. coli communis* and *B. coli communior* in almost equal numbers, often associated with a saprophytic *Streptococcus brevis* which occurs in the proportion of not more than 1 to every 10 colon bacilli.

Forty-five cases of neurasthenia in all were investigated, and the bacterioscopic examination gave the following results:

Bacillus coli, 10 cases.

Streptococcus pyogenes longus in practically pure culture, 21 cases. Here I have followed Eyre, who has never recognised the multitudinous varieties of streptococcus differentiated by some observers upon minor differences of biological characters, and which are undoubtedly due to variations of environmental conditions, but has adhered to the original classification of Lingelsheim into the pathogenic *Streptococcus pyogenes longus*, and the saprophytic *Streptococcus brevis*.

Bacillus coli associated with *Streptococcus pyogenes longus*, 2 cases.

Coliform bacilli in practically pure culture, 6 cases. This coliform bacillus (probably an atypical strain of *B coli*), which produces blue colonies on nutrose-agar plates and only ferments the monosaccharides, has been recognised by Distazo and Eyre as causally associated with muco-membranous colitis; indeed, the former observer regards it as practically specific in this connection.

Coliform bacilli associated with *Streptococcus pyogenes longus*, 3 cases.

Bacillus lactis aërogenes in more or less pure culture, 3 cases.

Serological observations (agglutination reaction and opsonin estimation) were made in all the cases, except some of the streptococcal ones, and formed a most valuable guide, especially in those cases where the infection was a mixed one.

It is interesting to note that of 5 cases on the lunacy border line, not one showed any change at all from the normal.

A point of much interest is that in a large number of the streptococcal cases pyorrhœa was either present or, if not present, a definite history of it could be obtained.

I think it will be agreed that this analysis also throws much light on the well-recognised connection of neurasthenia with colitis, a fact which has long been admitted, and also with various forms of chronic arthritis. A further point worth recording is that acting on Schrenk-Notzing's dictum that impotence may be the only symptom of neurasthenia, 2 cases whose fæces were examined showed very definite infection by streptococcus. One of these cases is quite cured, and is now married and leading a normal sexual life.

Upon the bacteriological results my cases may be classified as follows:—

Class 1.—Those in which the bacteriological flora appeared normal, as far as could be judged by the cultivations obtained upon nutrient media, and where subsequent investigation by serological methods was needed in order to select such strains of *B. coli* as had undoubtedly acquired pathogenic properties towards their host.

Class 2.—Those in which the *Bacillus coli* normally present had partially or wholly disappeared from the intestinal flora and was replaced by (*a*) *Streptococcus pyogenes longus*; (*b*) *Coliform bacillus*; (*c*) *Bacillus lactis aërogenes*.

Treatment.—The treatment was by autogenous vaccines with, in addition, sour milk and intestinal antiseptic in some cases. The

vaccines were given in small doses at intervals of from five to seven days, according to the reaction, if any. By only giving small doses, constitutional disturbance was usually avoided.

Of the intestinal antiseptics calomel, creosote, salol, sulphur, and beta-naphthol were all tried, and, if anything, I think the beta-naphthol gave the best results.

In the streptococcal cases I tried a vegetarian diet, acting on the well-known fact that in the fæces of many carnivorous animals, streptococci alone are present, but I cannot say that I think any advantage accrued from this, and, latterly, I have abandoned this form of diet.

Results of Treatment.—Successful results were obtained in the majority of the cases, and in many where previous treatment not on the above lines had completely failed. Although the cases are not many numerically (45 in all), the results were very striking clinically.

In Class 1, where the plate cultivations appeared normal, evidence of infection by *Bacillus coli* was obtained in every case by means of serological tests—for example, agglutination reactions and opsonin estimations, and improvement followed upon the use of the appropriate autogenous vaccine.

In Class 2 (*a*) the *Streptococcus pyogenes longus* was present, and under treatment the improvement manifested clinically was coincident with the disappearance of the streptococci from the fæces and the reappearance of the typical *B. coli.*

In Class 2 (*b*) the same remark applies to the clinical improvement as the coliform bacilli disappeared.

In class 2 (*c*), *Bacillus lactis aërogenes*, two of the cases were seen once only and were not treated; the one which was treated made a remarkable recovery.

One of the most striking results was the rapid improvement in the physical appearance; the muddy complexion so often present rapidly gave place to a healthy colour, the eyes became brighter and lost their dull, heavy look, and the face lost its appearance of premature age. The indigestion, aching pains, lassitude, and irritability disappeared, and the change in the mental condition was equally marked. The memory and power of concentration improved, the depression and insomnia passed away, and the whole outlook on life became quite changed, and in fact normal.

Neurasthenia has been classified according to whether the blood pressure is high, normal, or low. Whether this classification is of any very great importance I do not venture an opinion, but I wish to call attention to the fact that in several cases where the blood pressure was high it fell steadily during the course of the treatment.

Traumatic Neurasthenia.—With regard to traumatic neurasthenia, in a recent address given at Milan by Professor Murri, published in the July number of the *Universal Medical Record*, he points out that "cause" only exists as a complex of determining conditions, and that most frequently the accident is but the occasion that reveals pre-existing disorder, or that gives effect to it when the conditions are already ripe. The effects, therefore, are not specific to the occasion, but to the precedent condition. Of the two cases of traumatic neurasthenia I have so far investigated one showed definite evidence of *B. coli* infection and the other gave a pure cultivation of *B. lactis aërogenes.*

Summary.—I would summarise my observations by advancing the opinion that the bacteria referred to bore a direct causal relationship to these cases of neurasthenia, for the following reasons:

1. An abnormal condition of the intestinal flora was present in more than half the cases.

2. Serological tests yielded evidence of infection by the abnormal bacteria, and by some of the strains of colon bacilli in each of those cases where the intestinal flora appeared at first to be normal.

3. Most important, the improvement in the patient's condition, both physical and mental, under treatment synchronized with the reappearance of the normal intestinal saprophytes in the fæces and the disappearance of the abnormal organisms.

4. Of course one realizes that the personal element, and the factor of suggestion cannot be eliminated, yet many of the cases which were cured had previously tried other recognized forms of treatment—rest cures, high frequency, Weir Mitchell, hydropathy, etc.—where these same factors were at work, hence I do not think that they can fairly be said to have had much influence on the results.

5. The bacteriological investigations were made by Dr. Eyre, who was never informed previously of the nature of the case, and I should like here to tender him my very best thanks for the great trouble he has taken and the interest that he has shown in working out the results.

Illustrative Cases.—I will now give you some illustrative cases, dividing them into—

(*a*) Those which were successful.

(*b*) Those which were not. In these latter the intestinal flora remained practically unaltered in spite of the treatment.

I may here point out that neither the symptoms complained of nor the clinical appearance of the patient give any indication as to the variety of bacterial infection which will be found on examination of the fæces.

The following notes have been taken from my casebook just as they were entered :

SUCCESSFUL CASES.

Class 1.—Bacillus Coli.

CASE I.

Mrs. A. C., aged 46, married, no children. Healthy till an attack of influenza three years ago ; then anæmia, depression, chronic rheumatic pains, and some neuritis. In spite of treatment, rest cures, various kinds of baths both here and abroad, the condition, with the exception of the neuritis, remained unchanged. She complained of great depression, loss of memory, lack of concentration, irritability, and bad rheumatic pains (the joints appeared normal), and also of the ease with which she became fatigued. Complexion was muddy, and the eyes dull and heavy.

The fæces, culturally and microscopically, appeared normal, but *B. coli* gave an opsonic index of 1·5. Treatment commenced July, 1911. After the eighth injection the depression had disappeared. She stated tha she felt well and had plenty of energy, and could walk without fatigue. After the twelfth injection the index was 1·09. The will and mind were clear and the memory good. In July, 1912, she reports herself perfectly well, and the opsonic index is 1·2.

CASE II.

Mrs. F. C., aged 40, married, no children. History of an attack of what was apparently ptomaine poisoning one year ago, since when she has never been well. Has suffered from a feeling of heaviness in the appendix region for four years. Complains of inability to walk more than a few yards without intense fatigue. Pains in the limbs, especially in the legs. She is constipated and never has an action without drugs. Acidity, feeling of fulness after meals, palpitation ; sleep and appetite good ; anæmic, the complexion muddy, skin dry, dark circles under the eyes.

Fæces, apparently normal, gave an index to *B. coli* of 1·5. Treatment began November, 1911. She said she felt better after the first dose. Improvement was rapid, and after a month she could walk some distance without fatigue. Complexion became normal, and the face much fuller. After three months she was well, and in a recent letter states that she has remained so.

Class 2(a).—Streptococci.

CASE I.

A. S., male, aged 36, married, schoolmaster. Neurasthenia three years, which latterly became so bad that he had to resign his position as head master of a public school.

The first symptom noticed was a burning feeling of the face, hand, and back of the neck. Then followed lassitude, depression, and great irritability. He had no constipation, but was always worrying about the action of the bowels, the stools being always light-coloured. The blood pressure was 200 mm. The reflexes slightly exaggerated, marked insomnia, frequent micturition, great physical weakness.

Streptococcus longus was present in pure culture. Treatment commenced March, 1911. After the second injection he walked twenty miles, and was much more cheerful. At the beginning of May, the *B. coli* equalled the streptococci in numbers. Head much better. Blood pressure 170. In July, much better generally, blood pressure 150, streptococci diminishing, insomnia only causes one bad night in five. In November no insomnia for three months, no depression, blood pressure 160. Fæces have resumed normal type, culturally and microscopically. In March, 1912, writes that he is perfectly fit, and has taken up cross-country running.

CASE II.

Mrs. T., aged 37, married, three children, youngest 7. Colitis in India seven years ago. Six years' history of neurasthenia. Complained of great lassitude, depression, insomnia, loss of power of concentration, pains in legs, and chronic abdominal dragging pain, previously supposed ovarian in origin, but probably coming from the colon. No constipation, complexion muddy, skin dry, dark circles under the eyes, very anæmic. Fæces showed almost pure cultivation of *Streptococcus longus*.

Treatment commenced April, 1911. The symptoms rapidly cleared up, especially the abdominal pain. Sleep and spirits became good, and the complexion normal. In September the fæces were microscopically and culturally normal. In a recent letter she reports that she is in excellent health.

Class 2(b).—Coliform Bacillus.

CASE I.

G. W., aged 45, married, railway manager. Two years ago he suffered with a constant feeling of vertigo ; he used to perspire very freely, at first only at night, then in the day also. Complains of a feeling of dread, and undefined haunting fear of doom. No cause at all. Sleeps very heavily, but always dreaming. Great lassitude. Occipital headache, and burning feeling on the top of the head. Bowels open daily with salines. Twitchings of arm and face. Horror of noise. Great depression, very easily tired. Has tried several forms of treatment. On cultivation of fæces, coliform colonies appeared, the opsonic index to which was 1·91 while to normal coli it was 1·0.

Treatment commenced in February, and there was rapid improvement from this date. In a fortnight the depression had disappeared, and dreams and fatigue were less. At the end of three months he was well, and now reports that his condition, both physical and mental, remains excellent, and that he enjoys his work, which had previously become a burden to him.

Case II.

W. P., aged 29, accountant. Was quite well till nine months ago, when the present symptoms became manifest. He complains of worrying greatly about things (the condition becoming rapidly worse), lack of concentration, heavy sleep with bad dreams. He goes over and over his additions, because he thinks there may be an error. Has a dragging feeling on the top of the head, and sensation of swimming in the head when reading or doing any head work. Occasionally, when walking, he feels as though he reels, but does not actually do so. He never feels fit. Fæces showed coliform bacilli, index 1·4.

Treatment was commenced in December. The symptoms gradually abated. He was able to add easily, without going over the work more than once. The swimming feeling passed away, and in April he reported that he was absolutely well, and just going to get married. The fæces had then resumed normal type.

Class 2(c).—Bacillus Lactis Aërogenes.

Mrs. N. G., aged 60, married, no children. Ten years' history of neurasthenia, in the course of which she had tried many forms of treatment without effect. She complained of a feeling of absolute exhaustion, as though dying, and that to do the slightest thing was a "mountainous" effort. Frightful depression. Very highly strung, keeps going till she drops. Flatulence, acidity after every meal, pain and tenderness over colon on right side. Sleep broken by bad dreams; constant ringing in ears. Head always feels too heavy, and as if falling backwards. Mucus in stools, which are usually constipated. The patient was very anæmic; complexion pasty and yellow, skin dry, sclerotics yellow; blood pressure, 240; pulse, 56. *Bacillus lactis aerogenes* in pure culture in the fæces.

Treatment was followed by rapid improvement; digestion became good, the depression disappeared, and also the abnormal feeling of fatigue. Complexion cleared, and after ten injections the patient was quite well. The blood pressure in the meantime had fallen to 170, and the pulse had risen to 68.

We now come to the unsuccessful cases. These were quite small numerically, and usually streptococcal. They were not absolute failures, but they were not cures.

Case 1.

E. E., aged 46, musician. Ill eight years. When he entered my consulting-room he announced that I was the twenty-eighth doctor by whom he had been treated. Operation on left kidney eight years ago for supposed renal colic. Nothing was found, and I have no doubt the pain had its origin in the colon. Twenty-eight weeks in bed last year. Complains of great lassitude, weakness, irritability, and depression. Every molehill appears a mountain. Periodical attacks of pain, very acute in left side of abdomen, running down to legs. Diarrhœa and unformed stools. Fæces showed streptococci in nearly pure culture.

Treatment commenced February, 1911. He improved steadily in spirits, energy, and colour, which had been very pasty.

In May the streptococci equalled the *B. coli* in number. Stools now formed.

In November, after a lapse of three months, the streptococcus to *coli* ratio was back to 10 to 1.

In February the numbers were equal, and there he remains for the present.

He is immensely better, and looks a different man, and he has only had one day away from work in eighteen months, but I cannot say he is cured. I have discussed removal of his colon with him, but this he has refused.

Case II.

G. D. C., aged 49, male. Ill six months. Complained of vertigo, and a feeling of reeling, although he never did so. Depression, lassitude, pains in legs, irritability. Sclerotics yellow, skin dry, eczema of old standing. Blood pressure 180. Fæces showed streptococci in almost pure culture. Treatment begun in July, 1911. Gradual improvement took place in his condition, and in October the streptococci and coli were in equal numbers; blood pressure 130. In January, although his condition remained about the same, the culture showed nearly all streptococci again. In February they were again equal; blood pressure 126. He was much better, but not well, and then went to Switzerland.

This case was one of those in which I tried a vegetarian diet for a time, but gave it up, as it did not seem to be benefiting the patient.

With regard to the permanence of these cures several have been seen after an interval of over a year, during which period they have remained perfectly normal, and I see no reason to anticipate a relapse.

In conclusion, I may remark that as the above work is quite new, I have endeavoured to theorize as little as possible, and only to state the facts exactly as I found them.

Medical School Notices.

Medical Revision Classes for January Examination.

There will be a Paper in Medicine for the above class on Tuesday, November 12th, at 10 a.m., in the Committee Room, Medical School Office.

The Viva Voce will be held on Friday, November 15th, at 2 p.m., in the Committee Room.

Surgical Revision Classes for January Examination.

There will be a Paper in Surgery for candidates for the Examination in January next, on Wednesday, November 13th, at 10 a.m., in the Committee Room, Medical School Office.

Guy's Hospital,
October 31st, 1912.

Muscular Atrophy.

A CLINICAL LECTURE BY DR. HERBERT FRENCH.

(*Continued from page 441.*)

MULTIPLE OR PERIPHERAL NEURITIS.

In this form of neuritis a large number of the peripheral nerves are inflamed simultaneously, and the resulting paralysis is bilateral and symmetrical. It is due, in most instances, to some toxic chemical substance, either metallic or non-metallic or the product of the growth of certain pathogenic micro-organisms, or the result of some derangement of metabolism within the body. The toxic substance circulates in the blood and acts deleteriously on the peripheral nerves, which are particularly liable to be affected by poisons of this nature.

The symptoms differ widely on account of the various poisons affecting the nerves in different manners. In some cases the motor symptoms predominate, in some the sensory, whereas in others inco-ordination is the most prominent sign of the disease. A diagnosis of multiple neuritis cannot, therefore, be considered complete; it is necessary to investigate further and determine its actual cause, *e.g.*, if it is found that the disease is due to alcohol the diagnosis would be alcoholic multiple neuritis. Before describing the characteristic signs of the various forms, a consideration of the following classified list of the causes will be found of service:—

ARTIOLOGY OF MULTIPLE NEURITIS.

1. Toxic (due to a known poison in the blood).
   a. *Metallic.*
      Lead.
      Arsenic.
      Silver.
      Mercury.
   b. *Non-metallic.*
      Alcohol.
      Naphtha.
      Carbon bisulphide.
2. Toxæmic (due to some toxic chemical substance formed within the body, the exact nature of which is not known).
   a. *Pathogenetic* (as a result of certain acute specific diseases).
      Diphtheria.
      Typhoid.
      Influenza.
      Variola.
      Measles.
      Pneumonia.
      Tuberculosis.
      Malaria, etc.
   b. *Metabolic* (due to the presence of a toxine resulting from a derangement of the normal chemical processes of the body).
      Diabetes.
      Gout.
      Pregnancy.
   c. *Rheumatic* (following exposure to cold, and probably due to a blood poison similar to that which produces muscular rheumatism. It is possible that this form may be due to a toxine produced by the micrococcus rheumaticus).
   d. *Septicæmia.*
      Septic wounds.
      Puerperal septicæmia.
      Infective endocarditis.
3. *Organismal* (probably due to direct action of micro-organisms on the peripheral nerves).
   a. *Beri-beri.*
      Leprosy.
4. Idiopathic (a group containing cases in which the actual cause has not been discovered).

A description of the alcoholic form which is by far the commonest will give the best general idea of the signs and symptoms of this disease.

The onset varies in different cases: it may be chronic, sub-acute, or even acute.

The earliest symptoms are: retching and sickness in the morning on rising, loss of appetite (especially for breakfast), abdominal pain, dyspnœa, and palpitation on exertion, numbness, coldness, tingling, and a feeling of pins and needles in the toes and fingers, cramps in the calf muscles and indefinite rheumatic-like pains in the legs, followed by loss of power in the extremities, and wasting of the muscles.

In a well-marked case the patient lies in bed in a characteristic attitude with her wasted legs and arms extended and paralysed and her wrist and feet dropped.

Motor.—There is loss of power in the arms and legs varying from a slight degree to complete paralysis. At first it is slight and barely noticeable, but later there is a difficulty in raising the toes and feet from the ground when walking, the foot dropping at the ankle when it is raised and producing the so-called high-stepping gait. The feet are generally more affected than the hands. The muscles supplied by the external popliteal and radial nerves are first and most affected, though in severe cases even the diaphragm and abdominal muscles may be involved. Tremor of the hands and tongue is often well marked. Loss of co-ordination in the movements of the arms and legs is a noticeable symptom in some cases. The muscles of the face and eyes are very rarely affected.

Sensory.—The numbness, tingling, and cramps are followed by severe pains. The soles of the feet become tender on account of the plantar nerves being

affected, and in consequence walking causes a good deal of pain and distress. The calf muscles become excessively tender—the superficial nerve trunks are also tender and painful if touched. The temperature sense is normal. Anæsthesia is usually present, but is oftener partial than complete.

Reflexes.—The knee-jerks are ultimately lost, but in the early stages of the disease and in mild cases they may be increased. The cutaneous reflexes are usually diminished or lost, but if cutaneous hyperæsthesia is present they are frequently increased.

Trophic.—The muscles quickly waste and become flabby. Contractures and fibrous ankylosis of joints occur in advanced cases. The skin covering the fingers and toes may become thin, red, and glossy. Œdema of the limbs may occur as a result of the vaso-motor nerves being involved.

Electrical.—When muscular atrophy is well marked, reaction of degeneration is present, but when paralysis and muscular atrophy are slight the electrical reactions are either normal or only slightly altered.

Bladder and Rectum.—The sphincters are not, as a rule, affected unless there happens to be a good deal of mental disorder.

Special Senses.—There may be loss of memory, hallucinations of sight and hearing, followed by depression, irritability, insomnia, delirium, and dementia.

Cessation of the abuse of alcohol may permit of the neuritis subsiding slowly, and about three months after the actual inflammation in the nerves has ceased the degenerated fibres will have regenerated again. If the nutrition of the muscles has been maintained as far as possible by massage and electrical treatment, voluntary movements will now begin to return, and a slow but steady and possibly even a complete cure may be obtained.

Other forms of multiple peripheral neuritis have certain special features, as follows:—

Lead Neuritis.—Marked atrophy of the muscles of the arms occurs as a result of neuritis caused by lead poisoning, and it may be mistaken for progressive muscular atrophy or some of the forms of idiopathic muscular atrophy. There are three distinct types:—

a. The wrist-drop type.

b. The upper arm type.

c. The general type, resembling the alcoholic form.

In the first the extensor muscles of the fingers and wrists which are supplied by the musculo-spinal nerve, with the exception of the supinator longus, which is rarely affected, are paralysed, and they progressively waste. The most characteristic feature is the wrist-drop. The hands and arms in a few cases become œdematous.

In the second type the deltoid, biceps, brachialis anticus, and the supinator longus are paralysed and undergo atrophy.

Evidence of contact with lead, the presence of anæmia, a blue line on the gums, and attacks of colic and constipation would be strong evidence in favour of the atrophy being due to lead poisoning. There may be ocular neuritis also. In doubtful cases it may be necessary to evaporate down a bulk of urine and test it for lead.

Arsenical neuritis.—Rapid muscular atrophy and reaction of degeneration occur in some cases. Both the legs and arms are attacked, the former, as a rule, before the latter. A good deal of inco-ordination which may closely resemble the ataxic movements of tabes dorsalis frequently develops as a result of the impairment of the muscular sense. Tremors, painful cramps, and severe darting pains in the limbs are also frequently present. It is distinguished from other forms of neuritis by its frequent association with brownish pigmentation of the skin, the presence of erythematous or vesicular eruptions, keratosis of the palms, œdema of the eyelids, soreness of the eyes, loss of hair, and history of attacks of abdominal pain, nausea, vomiting, and diarrhœa.

It may arise in a susceptible person who is taking arsenic in official doses for the cure of chorea or a blood disease or psoriasis. In cases of doubt a sample of hair may be analysed to see if it contains excess of arsenic.

Diphtheritic Paralysis.—Muscular wasting is generally slight or moderate in degree, and is rarely the most prominent symptom. In the majority of cases paralysis of the soft palate, leading to a nasal character of the voice and to regurgitation of fluids through the nose during the act of drinking, squint, and paralysis of accommodation are the earliest symptoms. Inco-ordination and loss of tactile sensation and of the muscular sense are, as a rule, more marked than the paralysis; when the latter is extreme it affects the legs more than the arms.

Muscular Dystrophies.—Primary or idiopathic muscular atrophy (myopathy) is a condition which is due to changes originating in the muscles themselves independently of any demonstrable pathological lesion of the brain, spinal cord, or nerves. The wasting may or may not be associated with hypertrophy of other muscles. The following types may be distinguished:

1. Pseudohypertrophic muscular paralysis (Duchenne's type).

2. Juvenile muscular atrophy (Erb's type).

3. The facio-scapulo-humeral type (Landouzy Déjérine type).

4. Mixed and intermediate forms of the above.

There are certain features which are more or less common to all these types of the disease. Young people under twenty are most frequently attacked, and it is usual to find that other members of the family are similarly affected. There is a general tendency for the disease to gradually progress.

Motor.—The affected muscles become progressively weaker. Fibrillary tremors are rare. There is no spasticity.

Sensory.—There is no loss of sensibility to tactile, painful, or thermal stimuli.

Reflexes.—Knee-jerks are present until quite late in the disease; in fact, as long as there are a sufficient number of intact muscle fibres in the vasti interni to give any response. The superficial reflexes persist in a similar manner.

Trophic.—The muscles waste and some become soft and flabby, but it is usual to find others which are harder than normal as a result of some of the muscle fibres being replaced by firm fat or by fibrous tissue.

Electrical Reactions.—There is no reaction of degeneration, but there is a gradual diminution in the response of the muscles to stimulation both by the interrupted and continuous currents, until finally, when no muscle fibres remain, there is no contraction.

Bladder and rectum.—There is no loss of control of the sphincters until quite late in the final stages of the disease.

In distinguishing idiopathic muscular atrophy from diseases due to lesions of the spinal cord or nerves, the presence of hypertrophy of any muscle is of importance.

Pseudo-hypertrophic Muscular Paralysis.

The most striking characteristic of this form of myopathy is the association of enlargement of certain muscles with atrophy of others, loss of power occurring in those which are enlarged as well as in those which are atrophied. The apparent hypertrophy of the muscles is due to an increase in the interstitial fibrous tissue and fat, not to an increase in the size or number of the muscle fibres. Boys are much more frequently affected than girls. It may occur in several members of the same family, and it is generally transmitted to succeeding generations through the mother.

The first noticeable symptom as a rule is backwardness in walking, a condition which appears strange to the parents in view of the apparently well-developed condition of the legs. In some cases it is not noticed until the child is five or six years of age, when it walks unsteadily, is constantly falling down and finding a difficulty in rising again, and it also experiences great difficulty in going upstairs.

Motor.—In a well-marked case the loss of power in the legs is considerable, and there is weakness of the spinal muscles which is demonstrated by the inability of the child to pick up objects from the floor.

The gait is waddling in character, the feet being widely separated and the body swayed from side to side during progression. The child cannot stand on tip-toe. He finds a great difficulty in rising from a sitting or recumbent posture on the ground, having to go through the following manœuvres before being able to stand erect. He first rolls over and rests on his hands and knees; then puts his head between his arms and raises the knees from the ground so that he is now resting on his hands and toes; he next brings his hands nearer to his toes and then swinging his body first to one side, places his opposite hand on the corresponding knee, straightens that leg and repeats the performance on the other side so that he now stands with his legs widely separated and with a hand resting on each knee; he then places each hand alternately higher up his thighs until finally by a sudden backward movement of his shoulders he attains the erect attitude. There is no spasticity. Fibrillary tremors do not occur.

As a result of the weakness of the spinal muscles lordosis in the lumbar region appears when the patient is standing, and kyphosis of the whole spine when sitting.

Sensory.—There are no sensory disturbances.

Reflexes. The knee jerks gradually become feebler as the vastus internus becomes weaker until finally it is abolished.

Trophic.—The following muscles are most liable to become enlarged.—The calf muscles, extensors of the knee especially the vastus externus, the gluteus maximus, deltoid, triceps, supraspinatus and infraspinatus. The muscles most frequently atrophied are: the lower half of the pectoralis major, the latissimus dorsi, the serratus magnus, the biceps, and the flexors of the knee and hip. These muscles which are first enlarged may subsequently atrophy. Both the enlarged and the atrophied muscles are usually harder than normal, and they present a striking contrast to the soft, flabby, atrophied muscles associated with lesions of the anterior cornual cells and motor nerves. The thenar, hypothenar, interossei and facial and neck muscles as a rule escape.

Electrical Reactions.—Reaction of degeneration is never present. There is a progressive diminution in the amount of contraction of the muscles when stimulated by either the interrupted or continuous currents until finally there may be no response, a condition which implies an absence of muscle fibres.

Bladder and Rectum.—The sphincters may be affected in the last stages of the disease.

The most important diagnostic signs are:—The enlargement of the calf muscles, the difficulty in walking, the characteristic manner of rising from the ground, and the association of enlargement of the infraspinatus with atrophy of the lower half of the pectoralis major, and of the latissimus dorsi.

The course of the disease is gradually but surely progressive, death usually occurring from some intercurrent disease about puberty.

Juvenile muscular atrophy (Erb's type).—This form usually commences about the time of puberty in the muscles of the upper arm and shoulder. The muscles first affected are the biceps, triceps, and supinator longus, then the pectoralis major, latissimus dorsi, serratus magnus, trapezius, and finally the muscles of the trunk, the glutei and quadriceps extensor of the thighs. The deltoid, supraspinatus, infraspinatus, thenar, hypothenar, interossei, and the flexors of the forearm usually escape. When the trunk muscles and the glutei are implicated there is marked lordosis with

tilting forwards of the pelvis and projection backwards of the sacrum; if the trunk muscles are alone affected there is marked lordosis, so that if a plumb-line be dropped from the most prominent part of the spine it would fall behind the sacrum, whereas under the former conditions it would not clear the sacrum. When the patient sits down, kyphosis takes the place of lordosis if the abdominal recti muscles have escaped.

A consideration of the distribution of the atrophy is of the greatest diagnostic importance. Atrophy due to changes in the anterior cornua usually affects the muscles of the hands and forearms, whereas in myopathy these muscles escape and the upper arm muscles are implicated; but when it commences in the shoulder muscles the deltoid is that which is most liable to be affected, whereas in myopathy it nearly always escapes. Another important point to remember is the fact that the whole of the trapezius may waste in myopathy, whereas in cases of spinal cord disease the upper part escapes.

From lesions of the fifth and sixth cervical nerve roots myopathy is distinguished by the absence of a history of pain and of anæsthesia and the incomplete nature of the paralysis and wasting, some of the muscles supplied by these roots not being implicated.

The facio-scapulo-humeral form (Landouzy-Déjérine type). This form begins as a rule about the time of puberty, the face being first affected. The orbicularis palpebrarum, orbicularis oris and levator anguli oris are the first muscles to suffer, so that the eyes cannot properly close; the lips become prominent, separated and everted and there is inability to whistle or elevate the upper lip. The naso-labial fold is lost, the forehead is smooth and the face presents a dull and expressionless appearance. The muscles of the shoulder and upper arm are next affected, and later in the course of the disease the extensors of the wrist and fingers, and the muscles of the trunk and lower extremities.

The muscles of the eyeball and tongue, the supraspinatus, infraspinatus, flexors of the wrist and fingers and the intrinsic muscles of the hands are not affected. In distinguishing this disease from paralysis due to lesions of the nuclei of the third and twelfth nerves the absence of any affection of the muscles of the eyes and tongue is of the greatest importance.

Arthritic Muscular Atrophy.

All forms of arthritis whether acute or chronic are attended by more or less wasting of the muscles which are concerned in the movements of the affected joints. The extensors are more frequently involved than the flexors. It is particularly well marked in the deltoid when the shoulder joint is affected. The atrophy is due neither to neuritis nor to obvious lesions of the anterior roots or anterior cornual cells, but seems to be the result of some reflex influence on the muscles, transmitted from the joints by means of the joint-nerves, a view that is supported by the fact that if the posterior nerve roots are divided no atrophy of the muscles follow.

In acute arthritis the wasting is noticeable at the end of a week, the atrophy affecting the whole of the muscle and not only the part in immediate contact with the joint. If the inflammation soon subsides the muscles gradually attain their normal power and size. The same applies in the case of a bone fractured near a joint.

Motor. The loss of power, especially in the extensors, may be considerable.

Sensory. Sensory changes in the skin are rare, but in the early stages slight tingling may be noticed and occasionally areas of anæsthesia are found.

Reflex. The myotatic irritability is increased in the immediate neighbourhood of the affected joints; for example, if the thigh muscles are affected the knee jerk is exaggerated and when the ankle joint is involved foot clonus may be obtained.

Trophic.—The degree of atrophy varies according to severity and duration of the arthritis; in some cases of injury and osteo-arthritis it is very well marked.

Electrical.—The electrical reactions may be normal or there may be diminished excitability to both the interrupted and the continuous currents.

This form of muscular atrophy on account of its relation to arthritis, the absence of characteristic changes in the electrical reactions, and the presence of decreased myotatic irritability is easily distinguished from that due to neuritis.

Neuro-muscular Dystrophy.

Tooth's Peroneal Type.—This affection was first described by Charcot and Marie in 1886 and in the same year by Dr. Howard Tooth, in a thesis entitled "The Peroneal Type of Progressive Muscular Atrophy." It is usually spoken of as Tooth's peroneal type of muscular atrophy. Gowers described it as "the peroneal type of family amyotrophy" (neuritic muscular atrophy).

In some respects the malady resembles the myopathies particularly in the age at which it commences, the gradual onset, its slowly progressive character, and the occurrence of a similar affection in other members of the same family. It differs, however, in the distribution of the atrophy, in the very definite relation the onset often bears to some acute disease, such as measles, and in the occurrence of reaction of degeneration in the affected muscles.

It is, perhaps, due to a degenerative form of neuritis occurring in a patient who has a congenital tendency for the muscles to atrophy, and the nerves to degenerate.

Males suffer much more frequently than females. It is usually first noticed in early childhood. It very rarely commences after the age of 20. As a rule it follows some acute disease such as measles. The weakness and wasting first appear in the extensor longus hallucis, extensor communis digitorum, and the peronei muscles, but according to Gowers it is very probable that the small muscles of the feet are first involved. The first sign of the malady is dropping of the big toes and inability to extend them. Later the calf muscles suffer, then the vastus internus. Some years after the

legs have been thus affected, the hands and forearms are involved, the thenar, hypothenar, and interossei muscles being first of all attacked. The supinator longus and the muscles of the shoulder, back, neck, face, and eyes escape. In a well-marked case the following points would be noted:

Motor.—There is considerable loss of power in the legs and arms; slight fibrillation of the affected muscles may occur.

Sensory.—Cutaneous sensibility is usually preserved, but it may be impaired. Pains in the limbs are noticed in some cases.

Reflexes.—The knee jerks may be diminished or lost. The cutaneous reflexes vary.

Trophic.—There is well marked atrophy of the muscles of the legs, hands, and arms. A claw-like deformity of the fingers may follow, as a result of the atrophy of the intrinsic muscles of the hands.

Electrical Reactions.—Electrical irritability to both the interrupted and continuous currents is much diminished, and reaction of degeneration may be well marked.

Bladder and Rectum.—The sphincters are not affected until the latest stages of the disease.

It is distinguished from myopathy by its relation to an acute disease, the peripheral distribution of the atrophy, the sensory symptoms, the character of the electrical reactions, and the occurrence of fibrillation in the affected muscles.

From multiple neuritis it is distinguished by the slowly progressive character of the malady, and the liability of other members of the family to be affected.

Illustrative Case.

Lilian S., aged 9, was admitted on April 11th, 1901, for wasting, and weakness of the legs and arms. Forceps had to be used at her birth. Although a small child she was considered strong and healthy, and at the age of nine months could walk. In her fourth year she was laid up for three weeks on account of whooping cough, and at the end of this time she was unable to walk. She was taken to the Orthopædic Hospital, where a diagnosis of infantile paralysis was made, and she was ordered to wear boots with iron supports. At this time the feet and legs were wasted, and the patient used to fall down on account of her knees giving way without any warning. In the beginning of 1900 her hands and body appeared to be getting thinner, and at times she complained of aching.

She was an intelligent, bright, healthy-looking child. At times she let her hands fall limply in front of her, and if they were raised a condition of wrist-drop became apparent. Nevertheless she had a fair grip with both hands. The movements of the thumb were rather weak. There was no weakness of the upper-arm muscles, or of the shoulder or scapular muscles. There was neither spasm, tremor, nor inco-ordination. There was marked loss of power in both legs, especially in the left. Slight fibrillation of some of the wasted muscles had been noticed. On first getting out of bed she could not walk, and could only just stand, but in a short time this improved and she was able to get about fairly well. The gait was high-stepping in character. She held a pen like other people, but wrote very slowly.

The sensory functions appeared to be normal. There was no loss of sensibility to touch, pain, heat, or cold, all these forms of sensation being appreciated and differentiated. The knee jerks were absent. No ankle clonus, wrist jerks, and elbow jerks could be elicited. The plantar reflex was present and flexor in type. The abdominal, epigastric, and scapular reflexes were present.

Her parents appeared to be strong and healthy. One of her paternal uncles suffered from weakness and wasting of his arms and legs, however; he was late in learning to walk. When three years of age weakness commenced in his feet without any apparent cause, and wasting of the muscles followed. At the age of ten the hands were affected in a similar manner with weakness and wasting of the muscles, and from this time the malady had slowly progressed. At first he was able to get about with the aid of a stick, but later had to resort to crutches. At the present time he was quite helpless as to his hands and feet and wore pads on his knees; he dragged his feet and legs behind him as he moved along, whilst his hands were so weak that he was unable to hold his short crutches, to remedy which, iron hooks had been attached to his forearms and with these he grasped the crutches.

There was marked wasting of the thenar and hypothenar, and interossei muscles of both hands. There was slight wasting of the muscles of the forearms. The muscles of the trunk were not atrophied. There was no wasting of the deltoids, scapular, thigh muscles, or glutei. There was marked wasting of the muscles of the legs and feet. There were no abnormally large or hard muscles, and there was no evidence that any of the muscles had been previously enlarged in such a way as to suggest pseudo-hypertrophic muscular paralysis.

With the interrupted current there was no response on stimulating the thenar, hypothenar, and interossei muscles, with the exception of the third left dorsal, in which a slight contraction could be obtained. The small muscles of the feet, the peronei, and anterior tibial muscles did not react, but the calf muscles, glutei, thigh, and scapular muscles reacted normally. With the continuous current no contraction could be obtained in those muscles which did not react to the interrupted current, but with the other muscles K.C.C. was greater than A.C.C.

The bladder and rectum functions were normal.

The optic discs and retinæ were normal.

The pupils were equal, and reacted to light and accommodation.

In confirmation of the diagnosis the patient's brother began to develop weakness in his legs in 1903, and on making an examination both big toes were found to be dropped, as a result of weakness and wasting of the extensor longus hallucis. The peronei muscles were also wasted, and the boy was clearly developing Tooth's peroneal type of progressive muscular atrophy, exactly like his sister.

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 444.*)

X.

A GUIDE TO GUY'S.

"*The two new squares of building in* Southwark *by me some time since began and intended for an Hospital for reception of . . . sick persons . . . ; and such other erections offices and buildings as shall . . . be for that purpose further necessary.*

GUY'S WILL.

At first sight Guy's Hospital, seen from St. Thomas's Street, has altered very little since the year 1780 when the new façade was completed. For a while during the earlier half of the last century, some hideous obelisk-shaped lampposts were set up on the raised footway on either side, but these have long since been removed. The ugly skylight of the old operating theatre only made its appearance about 1867, and in the last dozen years or so the ward balconies have been constructed and the arch of the front gate altered. The latter change was made necessary, we understand, by the discovery that the gateway was so low as to refuse admittance to a fire-escape or, indeed, any vehicle of size above a four-wheeled cab. Previously, as we may see from the GAZETTE'S reproduction from Miss Pott's etching of the hospital front, the iron pillars were connected by the metal bar, which supports the scroll-work and the hospital's arms, running straight across. At the alteration, this transverse bar was bent to the present curve, with no great loss to the appearance of the gate. The niches in the stone piers flanking the gate, although evidently intended to contain statuettes representing patients, after the fashion of those supporting Guy's gateway at St. Thomas's, have never been so occupied.

In the centre of the older or east wing of the quadrangle is the entrance to the Governors' Court Room. Within the Counting House, on the ground floor, hangs a fine portrait by Johann Zoffany (1735—1810) of the father of William Hunt. Here, too, is the gold ring known as Guy's, in which is set a miniature portrait, probably not contemporary, of our Founder. In the Superintendent's Drawing-room, immediately behind the office but not shown to the public, is the one authentic portrait of Guy within the institution, painted in 1706 by John Vanderbank (1694—1734), and bequeathed to the hospital by Mr. Butterworth in 1860. Here also hangs the original of the well-known picture representing Guy in his Lombard Street bookshop conferring with Dr. Mead of St. Thomas's and Mr. Lane, "eminent surveyor and architect," who furnished the designs for the two original squares of the hospital. On Guy's right, looking over her shoulder in disgust while she removes his frugal meal, is represented the traditional housekeeper whose matrimonial designs had been frustrated by her employer's change of plans. Above the mantelpiece is seen the earliest view of the hospital copied directly from the engraving by John Bowles, the apparent anachronism being evaded by the visible portion of the inscription below—"*to be erected by Mr. Guy.*" Both Vanderbank's portrait and this jumble of anecdotes may be studied in GAZETTE reproductions in the Library. In the hall, outside the Counting House, is a portrait, chiefly remarkable for the glimpse of the hospital front, which forms the background. An ivory-headed walking-cane, said to have belonged to Thomas Guy, is also preserved in the building. Ascending the splendid carved staircase and passing a number of portraits of more recent members of the Staff, we arrive first at the Committee Room, where, besides a number of fine Sheraton chairs and a curious old flower painting above the fireplace, is a great iron box (with a most intricate lock) which formerly lodged the official seal of the hospital. Perhaps this is the veritable "Iron Chest" in which the executors discovered, after Guy's death, the odd thousand pounds in cash which they used to defray the expense of that "very pompous" funeral, with "no less than Forty Coaches with Six Horses each." In this imposing march from Mercer's Hall in Cheapside, where the body had been lying in state for several days, to St. Thomas's Church, 200 blue-coat boys from Christ's Hospital (to which also he was a great benefactor) walked in the procession and sang before the hearse.

The great room beyond is the Court Room, in which we at once notice the fine carved woodwork, unhappily masked by white paint, the painted ceiling, and the tall portraits let into the panels of the wall. The painting on the ceiling by Sir James Thornhill (1675—1734), a grand-nephew of the great physician, Sydenham, represents the "Apotheosis of Thomas Guy," who is depicted clutching a beehive (the symbol of Industry) in the most intrepid fashion. The portraits upon the walls represent Guy, painted by Richard Dahl (1656—1743), and three Treasurers. "King" Harrison, Mr. Turner, and Mr. Cosmo Bonsor.

The statue of *brass* in the centre of the front quadrangle was the work of Peter Scheemakers. The likeness was probably worked from the plaster death-mask of Guy's face, for this is the oldest countenance among the several representations about the place. The model was submitted to the Governors in 1731, and approved, and the statue finally erected three years later, at a cost of 500 guineas. Charles

Joye, the Treasurer of the two Hospitals, was inspired by it to commission the sculptor to produce a similar statue of Edward VI., at the same cost (which would represent five times as much in the coin of to-day) for St. Thomas's. Scheemakers must have been well acquainted with Dr. Mead, for when the latter, with the Earl of Burlington and the poet Pope headed a committee to erect, by public subscription, a memorial to Shakespeare in Westminster Abbey, it was this sculptor who was chosen to execute it. Later still, when Mead's own hour had struck, it was Scheemakers, again, who produced the great physician's monument for the Abbey.

"In the Chapel (shouldering God's altar)," says Pennant (1793), grudgingly, "is another statue of Mr. Guy"; not by Bartolozzi, as a writer in the last issue of the GAZETTE asserts, but by John Bacon, R.A. (1740—1790), whose monuments to Pitt in the Abbey and in Guidhall and of Dr. Johnson in St. Paul's are well known. The marble, which was set up in the Chapel in 1779, represents the Founder, again in his livery gown, raising a sick man, whilst, in the background, a couple of porters are carrying a patient upon a curious table-like stretcher into the hospital. The circular medallions below represent, on the right, the customary figure of Charity protecting little children, and, on the left, three maidens, one of whom bears the beehive of Industry, another what appears to be a hand-mirror, and a third, a bridle; the significance of the two latter objects has, so far, escaped us. The monument cost the hospital £1,160 10s.

To Bartolozzi we are indebted for the *engraving* of this fine memorial, but that over-worked and, possibly, over-rated master has not produced a masterpiece in this instance. The drawing of the arches and of the rustic work in the background is muddled, and Guy is represented wearing his own hair, which we venture to assert was not contemplated by Bacon.

There is little else to detain us in the rest of the florid little chapel. More interest is attached to the crypt beneath. Here are "the Remains of Thomas Guy, Founder of this Hospital, who died 17 December, 1724, aged 80. Removed from the Vault under St. Thomas's Church to this Place in September, 1780." Only in the latter year was the chapel completed. Close by is a tomb whereon is carved the Grand Cross, ribbon, and motto of the Guelphic Order of Hanover, founded by William IV. in 1818. Here lies Sir Astley Paston Cooper, Baronet, who died 12th February, 1841. Near by another inscription indicates "The Body of Charles Joye, Esq., Treasurer of St. Thomas's and Guy's Hospital, who died December 20, 1737, aged 67 years. To be removed into Guy's Chapel when built and lay'd as near as possible may be to the body of the Founder. By Order of the Court of Committees of Guy's Hospital, dated 7th January, 1738." We have already seen a Latin version of the same inscription upon a mural slab in St. Saviour's, which might with more reason have been transferred from St. Thomas's Church to the Chapel above this vault.

Richard Stocker, Apothecary to Guy's (died 1843), his wife and four small children are commemorated at great length. James Franck, surgeon (died 1782), a chaplain named Avory, George Brough, and Mr. and Mrs. Hollington are all buried here. Two other tombs alone remain for detailed description.

John Belchier, surgeon (died 1785, æt. 78), was buried here, by his own direction, with iron nails in his coffin which was to be filled with sawdust. A writer in a description of this vault, which appeared in the GAZETTE in 1907 (who seems to have missed the inference that Belchier's object was to accelerate decomposition in order to frustrate any attempt at body snatching), describes the coffin as filled with sawdust *and* nails, and quaintly adds, without taking breath, that Belchier "seems to have been a highly religious man." The same writer is in error when he states that William Hunt (1751—1829), our "second Founder," is not buried in the crypt; Hunt's must be the tomb on the south side "with no plate or sign." The newspaper "John Bull" (no connection with its namesake to-day) of Sunday, October 4th, 1829, has a detailed account of Hunt's burial in "the vault of Guy's Hospital," a place which he chose for interment rather than Tothill Fields in order that on no account should his bones be allowed to mingle with those of "that villain, my brother."

He, too, had an inordinate horror of involuntary "resurrection" and of premature burial. He had gummed to the front page of his will an advertisement of "patent and self-closing and unopenable iron coffins," and had left directions that he should be buried in an iron or stone coffin, but not till undoubted signs of putrefaction should have appeared. This same newspaper unkindly suggests that he had selected the Guy's vault "to secure himself from the resurrection men, upon the principle, we suppose, that *there is honour among thieves,* and that by throwing himself upon the hospitality of the surgeons, he ensured his own safety." It is easily understood that he desired no inscription that would indicate his resting place. The *Morning Post* of the day following confirms the fact of his burial in this crypt, and describes the reception of his funeral carriage after its journey by road from the Petersham estate near Richmond by the Hospital authorities. The bulk of his fortune, acquired in the silk trade, to the amount of £180,000 he bequeathed to Guy's Hospital on condition that accommodation should be built and fitted up for a hundred more patients than the original founder provided for. This was done, and the extra patients were temporarily lodged in old warehouses until that great building that reminds one of a railway terminus was completed in 1853.

The older engraved views of the hospital show a much simpler and narrower ornamented façade, although the building of the entrance projected as far forward from the wards on either side and was of the same width as at present. Here also was rusticated stonework, but with three arches only, and above them, on the level of the first floor, three vacant niches, of which the central one, flanked on either side by small Ionic columns and surmounted by a small triangular pediment, was evidently intended, originally, to contain an effigy of the Founder. All this was altered between the years 1774 and 1780 to the front that we now know. The former width is still indicated by the extent of the uppermost of the steps, and, above, by the space enclosed by the four demi-columns, whose depth, greater than that of the two Ionic pilasters at the sides, causes the middle portion and the great triangular pediment which crowns it to project slightly in front of the rest of the façade.

Whilst Jupp, the architect, was engaged in making these structural alterations, Bacon was at work on the sculptural ornaments. The statues in the niches represent Æsculapius, who, as Lemprière reminds us, was the god of medicine, a son of Apollo and surgeon aboard the Argo; and Hygeia, his daughter, the goddess of health. Æsculapius is represented with two of his attributes, the knotted staff which typifies the arduous nature of his profession, and the serpent, the symbol of prudence and foresight. Between the four half-columns are three basso-relievos, illustrating eighteenth century practice in the matter of blood-letting. To the left a child holds a vessel containing a leech, curiously reminiscent of the early signature of that great Bart.'s man, John Leech. In the middle is displayed a twisted wreath-like tourniquet. The babe on the right has both hands engaged. In one hand is held an ordinary lancet; in the other, an old-fashioned many-bladed "scarificator." This fearsome instrument Monson Hills, in his book on Cupping, describes as sometimes possessing as many as 8, 10, 12, or even 15 lancet-blades which were released, after the box had been applied to the patient, by pulling a trigger. Hills himself got better results with fewer blades. The instrument may be studied in Dr. Cock's collection in the Gordon Museum, whilst now and again the multiple scars left by its use may be seen on an elderly patient.

The pediment surmounting the central part of the broken architrave, shows a medallion with a female figure holding a tightly-swaddled infant, supported by "the kind life-rendering pelican" and her young, "repasted with her blood." On either side of the medallion is the pair of semi-recumbent patients so common in hospital ornamentation. St. Bartholomew's has a pair, known as Lameness and Sickness, reclining on the open-arched pediment above the statue of Henry VIII; and we have already alluded to the pair (which may have suggested the pose of Hogarth's "Rake") from Old Bethlem. In contrast with these in-patients, as from the scantiness of their attire we must regard them, are the four statuettes of out-patients, in contemporary dress, of St. Thomas's, and the two early seventeenth century coloured figures from St. Bartholomew's, now on loan at the London Museum in Kensington Palace.

Within the hospital there is little that is really old; not even, we are assured, the once-famous port that lives in a delightfully cobwebby cellar beyond the store-room. The beadle's staff, clamped to the doorway of the porter's lodge, is late Georgian. The plain old iron barrier was replaced by those very strange gates within the last fifteen years, at the same time that the tessalated pavement of the colonnade was laid down in the place of the old flagstones. About that time also the old wooden staircase near Cornelius was modernised into iron and stone, a metamorphosis which had overtaken the northern stairway in 1867. The old operating theatre, despite its venerable appearance, dates no earlier than that year, when also arose that ugly pyramid of glass, its skylight. It appears probable that the earlier theatres occupied the same site, for the oldest prints show a large flat skylight in much the same position.

Before the completion of the west wing of the front quadrangle the hospital Chapel occupied the corridor on the first floor above the colonnade. Later, when the services were conducted in the new building, this corridor became, in 1788, the Chapel Ward for convalescents. In the same year the two wards on the ground floor were created by taking in the arcade that up to that time had extended all round the east and west quadrangles. If we consult that valuable old print (by John Bowles, 1724) hanging in the Reading Room in the College, we shall understand better than any words can describe what the hospital looked like in the earliest years of its existence. Indifferent draughtsmanship and a very hazy notion of perspective conspire to give the wards an air of grandeur that was never theirs in reality.

John Howard, the philanthropist, visiting the hospital in 1788, reported that some of the wards were far too low pitched, only 9½ feet high. The wooden framed bedsteads, shown in the engraving, will readily explain why, when Mr. Harrison succeeded to the office of Treasurer, there existed an important official with a yearly salary of £40 (the same as that of the surgeons) . . . . . the bug catcher. Interiors of hospital wards are so rare among old engravings that we may here refer to the view of a ward in the Middlesex Hospital, which figures among the drawings by Rowlandson and Pugin in the "Microcosm of London," published in 1811, where the appearance differs from that of the present day ward to a strangely small extent; only the bed-frames and curtain rails are of wood.

Cornelius was opened at the end of 1808, but its neighbour Accident (quite recently become Astley

Cooper) had been in full working order for some years previously. Guy's has generally been conservative in its retention of the old ward names. It is only in comparatively recent years that a tendency has arisen to commemorate its more famous surgeons and physicians in the nomenclature of its wards.

"Clinical," as we have already noted, was from 1774 to 1860 occupied only by lunatics, and of these only female patients were admitted after 1793. It was surrounded by a high wall, which also included the "Lunatics' Airing Ground," eventually included in the Park. Previous to the final exclusion of mental cases, the Clinical wards were Job and Lydia, of which the adjoining ends formed a large room for the "clinicals," reached by a flight of stairs from the quadrangle between Cornelius and the old library. Within recent memory, there was a flight of steps downward leading to the old chemistry department. Here in the laboratories behind the theatre are two relics of antiquity. In Golding's History of St. Thomas's Hospital we read of a cold bath of glazed earthen tiles and marble, about five feet deep, six or seven feet long, and three feet wide. "Our Marble Bath," if it still exist, answers to this description closely. It is sunk below the level of the floor, and by the four flights of steps at the extremities and sides, are inset bands of 17th century Dutch tiles, much discoloured. As far as we know, this one bath served the needs of the four hundred or so patients within the hospital in its early days.

In the room next beyond is an oval medallion with festoons on either side, in white marble. This Pennant tells us represents "the great and pious Boyle," who published in 1661 "The Sceptical Chymist or Chymico-Physical Doubts, and Paradoxes touching the Experiments whereby vulgar Spagyrists are wont to endeavour to evince their Salt, Sulphur, and Mercury to be the true Principles of Things." This was evidently a Nasty Blow for the Spagyrists. John Osborne, formerly Guy's apprentice, printed in 1724 an edition of Boyle's Works, at the old shop at the "Lucky Corner" of Cornhill and Lombard Street.

From the style of the medallion we may guess it to have been produced somewhere about the year 1770, when the old Chemistry Theatre was built. Dr. Saunders, who had previously lectured on chemistry at his house in Covent Garden, was elected to the Guy's staff in 1770, and transferred his course of lectures hither, the Governors having built for the purpose, this famous old theatre. The frontispiece to the second edition of Dr. Babington's "Lectures on Chemistry," published in 1816, is an engraved view of the well of this theatre, with the lecturer's bench, the glazed doors through which the janitor used to note defections on a recount, even the same old air-pump, and the same old stove. If, as we understand, the theatre is no longer to be used for lectures, the "new cubbs," though they escape many an hour's discomfort from cramped knees and aching elbows, will yet miss that sense of personal contact, if we may so express it, with the many eminent men of the past, who in their day also sat on those most uncomfortable benches.

The alcove from Old London Bridge was put up in the Park in 1861. Two similar alcoves are in existence in the Victoria Park in the east end of London, which, like ours, show the Bridge House Mark (or Southwark Cross) carved on the under surface of the key-stone.

Little more remains to recall the early days of the hospital. The old Museum, Anatomy Theatre, and Dissecting Room were built no earlier than 1825. The bust of Sir Astley Cooper, formerly in the old museum, is now in the entrance to "Hunt's House" (did you notice Hunt's Arms and those of Guy on the exterior?) for the eye-patients to strike their matches on. The low-relief on the pedestal has been irreverently entitled "Horse-play in the Swimming Bath"; an obvious anachronism, although no other explanation is forthcoming. The monument is the work of Joseph Towne, the creator of those priceless wax models that are at the mercy of any criminal idiot who chooses to light a pipe or cigarette in the Gordon Museum. On the first floor landing of the Medical Building are two more examples of Towne's work; portrait busts which, we regret to say, do not bear the names of their originals. Things are better in that respect, with the series of busts by Towne lining the passage to the Library. These, alas, have of late acquired a complexion such as Addison, himself, never knew.

(To be continued.)

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

Constructive Anatomy.

SIR,—Mr. Clement Lucas has, we think, somewhat misunderstood the purport of our suggestion relating to modelling as an aid to the learning of anatomy. We do not for a moment propose that men should attempt any artistic or minutely accurate representation of parts. In fact, the very impermanency of plasticine must obviate any temptation to produce beautiful or detailed models. The usefulness of ordinary diagrams both in learning and in teaching anatomy Mr. Lucas will not deny. We believe that rough models in clay are considerably more useful even than diagrams, and from our own experience are inclined to think that the method can be successfully applied even by "those who have no love for Art" as a pursuit.—Yours faithfully,

J. A. R.
W. R. R.

Pass List.

Royal College of Surgeons.

LICENCE IN DENTAL SURGERY, OCTOBER, 1912.

PRELIMINARY SCIENCE EXAMINATION.

Part I.—CHEMISTRY.	Part II.—PHYSICS.
*Bryant, E. H.	Richards, L. P.

*Chemistry only.

Conjoint Board.

FIRST EXAMINATION, OCTOBER, 1912.

Parts I and II.—CHEMISTRY AND PHYSICS.

*Barlow, N. A. H.	*Harrington, F. J.
†FitzGerald, G. H.	Kilroe, W.

*Richards, G. V.

*Passed in Part I only. †Passed in Part II only.

Part III.—ELEMENTARY BIOLOGY.

Tomes, E. A.

Part IV.—PRACTICAL PHARMACY.

Collar, F.	Kemp, J. W.

SECOND EXAMINATION.

ANATOMY AND PHYSIOLOGY.

Day-Lewis, A. K.	Kendal, N. E.
Hogben, H. F. T.	Reynolds, W. L. E.

FINAL EXAMINATION.

MEDICINE, SURGERY, AND MIDWIFERY.

*Robinson, W.	*Webb, W. L.

MEDICINE AND SURGERY.

Eccles, G. D.	*Maile, W. C. D.

Perceval, J. L.

MEDICINE AND MIDWIFERY.

Creasy, R.	*Reynell, W. R.
Ogilvie, W. H.	*Zamora, A. M.

SURGERY AND MIDWIFERY.

Clifford, A. C.	*Richards, J. F. G.

*Smyth, W. J. D.

MEDICINE ONLY.

Bennett, R. S. de C.	*Fry, W. K.
Danby, A. B.	Keer, K. J. T.
*Doubleday, F. N.	Pochin, C. H. G.

*Seabrooke, A. S.

SURGERY ONLY.

*Bastard, H. R.	Mahon, E.M.
*Genge-Andrews, G. E.	*Reeve, E. G.
Henry, A. M., L.D.S.	*Rook, H. C.
*Hoby, H. J.	*Ryley, C. M.
*Keith, S.	*Stringer, L. B.

MIDWIFERY ONLY.

Atienza, V.	Moore, A. G. H.
Erulkar, A. S.	Morgan, O. G.
*Gardiner, H., M.B., B.S.	Ryle, J. A.
Garrett, G. W. B.	Sharpe, H.
Jones, J. P.	Whitworth, W. C.

*Denotes completion of Examination.

Royal College of Surgeons of Edinburgh.

The following have been admitted to the Fellowship.

Kahlenberg, F.

Indian Medical Service.

The result of the Competition for Commissions in the I.M.S., held recently, has been announced.

The following were among the successful candidates:—J. B. Hance. M.B., B.C. Cantab., 4th place (3389 marks). G. Y. Thomson, M.B., B.S. Lond., 6th place (3374 marks).

Guy's Hospital Dental Society.

A MEETING of the Dental Society was held on Friday, October 11th, at 4.15, in Class Room No. 2; about 50 men were present.

Mr. Aubrey, in the absence of the President, took the chair, and gave a very interesting address. He spoke particularly to the new men, urging them to support the Society, and to avail themselves of all the opportunities offered them in connection with it. The keynote of his speech can be admirably summed up in the words "Be keen."

The Hon. Secretary then read the minutes of the previous meeting, after which Mr. Bulleid read a paper entitled "Some Aspects of Orthodontics." The paper was excellently written, and provoked a great deal of discussion. The meeting was then adjourned.

Pupils' Physical Society.

A Clinical Meeting of the above Society was held in the Wills Library, on October 23rd, at 8 p.m. Mr. G. Marshall occupied the chair, and 33 members were present.

The following cases were shown:—

1. Gumma in a case of Congenital Syphilis. Mr. Muir Smith.
2. Syphilitic Ascites. Mr. Kemp.
3. Bilateral Dislocation of Radius. Mr. York Moore.
4. Vertigo. Mr. Wickenden.
5. Vertigo. Mr. G. S. Miller.

Cases of Cardiac Asthma, and of Adherant Pericardium were shown by Messrs. Stevenson and Burnside respectively, but were not discussed owing to lack of time.

The following members took part in the subsequent discussion:—The President, Drs. Johnson and Maxted, Messrs. Lloyd, Hunt, Miller, Morgan, H. N. Eccles, E. S. Taylor, E. D. Scott, Ryle, A. J. Smith, Mollison, Godding, and the Hon. Secs.

Appointments.

Naval and Military.

Deputy-Surgeon General W. W. Pryn, R.N., has been appointed to Royal Naval Hospital, Gibraltar.

Major H. Austin Smith, I.M.S., has been promoted Lieut.-Colonel, 27th July, 1912.

Captain A. L. Foster, R.A.M.C., has been transferred from Rawal Pindi to Kalabagh, Murree Hill District, for duty.

Captain P. S. Mills, I.M.S., Plague Medical Officer, was posted to Hoshiapur for duty on return from leave.

Major L. Humphrey, R.A.M.C., has been transferred to Home Establishment from India, on termination of leave.

Territorial Force.

2nd Home Counties Field Ambulance (R.A.M.C.), Lieut. G. T. Willan to be Captain, 3rd October, 1912.

1st London Field Ambulance (R.A.M.C.), Lieut. A. D. J. B. Williams is seconded for service under the Colonial Office, 1st May, 1912.

Attached to Units other than Medical, Lieut. P. C. P. Ingram to be Captain, 30th September, 1912.

Civil.

D. Arwyn Davies, M.R.C.S., L.R.C.P., appointed Resident Medical Officer, West Herts Hospital, Hemel Hempstead.

H. J. Gater, L.M.S.S.A., L.R.C.P.I., appointed Clinical Assistant, Evelina Hospital for Children, Southwark, S.E.

Bryden Glendining, M.B., B.S. Dur., F.R.C.S., appointed Gynæcologist, Hampstead General and North West London Hospital.

Papers by Guy's Men.

A. H. Carter, M.D., B.S. Lond.: A case of Uræmia Treated by Morphine.—*British Medical Journal*, 2nd November, 1912.

Sir Jas. F. Goodhart, Bart., M.D. Aberd., LL.D.: The Harveian Oration on the Passing of Morbid Anatomy. Delivered before the Royal College of Physicians on St. Luke's Day, 1912.—*Lancet and British Medical Journal*, 26th October, 1912.

Sir Henry Morris, Bart., F.R.C.S., F.R.C.S.I. An Address delivered at the Royal Army Medical College on the occasion of the Prize-giving, October 29th, 1912.—*British Medical Journal*, 2nd November, 1912.

Norbert L. M. Reader, M.B., B.S.: Random Notes on General Practice.—*Practitioner*, November, 1912.

G. C. F. Robinson, F.R.C.S.: A Case with Comments, Ruptured Sarcoma of the Right Kidney simulating Appendicular Abscess.—*Practitioner*, November, 1912.

Sir George H. Savage, M.D., F.R.C.P.: An Address on Mental Disorders. The Presidential Address delivered before the Section of Psychiatry of the Royal Society of Medicine, 22nd October, 1912.—*Lancet*, 26th October, 1912.

W. Hale White, M.D., F.R.C.P.: A Clinical Address on the Importance of Examining the Urine Bacteriologically. Delivered at the Opening Meeting of the Derby Medical Society, 15th October, 1912.—*Lancet*, 2nd November, 1912.

Major W. H. Thorneley, I.M.S.: Bullet Wound of Lower End of Femur; Death from Hæmorrhage of the Popliteal Artery Nine Days later.—*Indian Medical Gazette*, October, 1912.

Golfing Society.

A General Meeting of the above Society was held on Thursday, October 31st, 1912, when the following officers were elected for the ensuing year:—President: G. Newton Pitt, M.D. Vice-Presidents: H. C. Cameron, M.D.; H. L. Eason, M.S.; C. H. Fagge, M.S., F.R.C.S.; J. Fawcett, M.D.; A. W. Ormond, F.R.C.S.; F. J. Steward, M.S., F.R.C.S.; R. Davies-Colley, M.C., F.R.C.S.; E. C. Hughes, M.C., F.R.C.S. Captain: J. M. Jarvie. Hon. Sec. and Treas., R. Curle. Committee: Messrs. R. Creasy, R. A. Fawcus, F. A. Knott, O. Morgan, G. Noott, F. G. L. Scott.

This Society was formed in May, 1908, and being affiliated to the Clubs' Union, all members of the Union are members of the Society.

Matches will be arranged whenever possible, in addition to the Inter-Hospital Cup Ties, and there is every prospect of holding competitions at least four times annually. It is to be hoped that these arrangements will result in more keenness on the game than is shown at present. Arrangements have been made whereby members of the Society may play on the following courses under certain conditions:—

At the Ilford Golf Club from Monday to Friday, on payment of an annual subscription of £1 1s., without entrance fee. Such members may play on Saturdays and Sundays and Bank Holidays, at the rate of 2s. 6d. a day.

At the West Essex Golf Club from Monday to Friday, on payment of an annual subscription of £2 2s., without entrance fee. Such members may play on Saturdays and Sundays on payment of daily fee of 2s. 6d.; also on any day except Sunday at a green fee of 2s. 6d. On Sundays the green fee is 5s. unless the player be accompanied by a member of the West Essex Club, when it remains at 2s. 6d.

At the Foxgrove Golf Club, Beckenham, on any day on payment of a green fee of 2s. 6d.

Will all men who play golf kindly give their names, together with their lowest club handicaps, to the Hon. Sec. as soon as possible?

INTER-HOSPITAL GOLF CUP-TIE.

St. Bartholomew's not having been able to raise a team for Wednesday, November 6th, Guy's gained a walk-over in the 1st round of the Cup-tie, and now have to play London in the semi-final round.

Sport.

Rugby Football.

GUY'S v. ALDERSHOT COMMAND.

It was a pity the afternoon for this match at Honor Oak Park turned out so wet, but still a good many enthusiasts turned up to see the play from the comfortable shelter of the stand.

The Aldershot Officers were not a very good side. They are not often able to get the same, or even approximately the same, side together twice, so that their teams rather resemble a scratch XV. Their tackling was their weakest point; many of the for-

ward rushes were well executed, but whenever Guy's got the ball they looked dangerous. Indeed, had the afternoon been fine and the ball dry the Hospital's total could have been almost doubled. After the forwards had worked well towards the visitors' line the ball came out to Evans; the opposing side hesitated to tackle him, with the result that Evans eluded quite half a dozen players and grounded by the post. Medlock converted. From the kick-off the visitors went away with a rush, and Wolfe, playing on the right wing, was almost in, but Harkness was particularly safe, and sent play to midfield where Rook got possession and, after a good run, was pushed into touch by the corner flag. The Command were forced to concede a minor, but just after, Medlock ran clean through them to ground very favourably. The kick at goal failed, but Medlock made no mistake with a try from Kennedy just after. The visitors now had a turn, chiefly by good forward work they got to Guy's 25, and Lieut. Lilly plunged over for a try. He failed at conversion, but the place was very wide. Before half-time Parry-Jones put the Hospital another try on.

The second half was not very exciting, but the Command forwards often tested Harkness. The last-named, however, made no mistake. The home forwards, who had taken things rather more easily, revived, and before the end gave their backs plenty of chances. The ball was very difficult to handle, and foothold most insecure. However, Evans gained another very good try and Stranack put on a final one just on time, Parry-Jones converting Stranack's effort. Score:—Guy's Hospital (3 goals 3 tries) 24 points; Aldershot Command (1 try) 3 points. Team:—

GUY'S.—A. H. Harkness (back); H. W. Evans, V. H. Curle, E. C. Nicholls, A. F. Rook (three-quarters); J. E. Davies, C. H. Medlock (halves); R. S. Kennedy, W. S. Stranack, O. Parry-Jones, A. B. Danby, A. L. Anthony, A. S. Liebson, H. P. Whitworth, C. H. Laver (forwards).

REMARKS.—The forwards were excellent; there was much more "push." In the loose work there was plenty of "devil," but a little more would be better still. Medlock played a very good game indeed, In fact, all the backs did all that could have been expected. Harkness will make a very safe last "line" of defence.

GUY'S v. CAMBRIDGE UNIVERSITY.

A fine day and an excellent team brought by the Varsity, consisting mostly of "Blues," attracted a big crowd to Honor Oak Park on Wednesday, October 23rd. They were rewarded by witnessing as good a game as could be wished for. Though the visitors won, they would be the first to agree that Guy's were, so to speak, "on their heels" the whole time. Greenwood's magnificent kicking had much to do with the visitors' victory, and, strange to relate, a drop at goal that screwed off at an extraordinary angle led up to the University's second try.

The game had not been in progress long before it was evident that the Hospital men were being outplayed—the pack were not together and the backs uncertain. During this first few bad minutes Lindesay accepted a pass from Fowler and got over in an easy position for Thomas to goal. It looked as though Fowler knocked on before finally gathering, but no whistle sounded, and such incidents are all in the game. Guy's were getting more together, and the game, tremendously strenuous, settled in the Guy's side of the half-way line. Lowe looked like going through, but punted instead of running. A cross kick by Bickley, well judged, fell for Thomas to field neatly and dash for the line, but the referee had touched the ball. A grand tackle by Millett, who brought Will down and stopped a certain try, led up to a scrum. Guy's cleared, but an attempted drop by Greenwood screwed to the right, Bickley dashing up and scoring. Greenwood goaled beautifully. A forward rush by Guy's carried all before it, and Daw successfully touched for a try, Medlock adding the points. Then came an unfortunate off-side against the Hospital. From a long distance Greenwood kicked a grand goal. Following on this came a smart interception by Nicholls who ran to Wallace and handed on to Stokes, a try resulting, and Medlock again goaling. In fairness to the other side it should be stated that Nicholls's pass looked to be a forward one.

With only 3 points difference at half-time it was eagerly hoped that Guy's would win, but in about 15 minutes Cambridge went further ahead. Thomas cut through and gave the Light Blue's three's an easy task, Will completing it with a try by the corner. This time Greenwood's kick went wide. Guy's now got the upper hand. They bustled the heavier pack opposed to them, and repeatedly got the ball, but no score accrued. The tackling was very keen, and Millett ran finely; a pass of his looked like putting Anthony in, but the latter had no pace on at the moment of receiving. Kennedy rallied his forwards repeatedly, and though ground was gained, the Cambridge full-back always had time to clear, so that in the end Cambridge still led by 3 goals (1 penalty) 1 try, 16 points, to 2 goals, 10 points.

GUY'S.—A. H. Harkness (back); H. Millett, E. C. Nicholls, J. P. Jones, A. L. Stokes (three-quarters); C. H. Medlock, J. E. Davies (halves); R. S. Kennedy, O. Parry-Jones, W. S. Stranack, H. Daw, A. W. A. Davies, A. L. Anthony, A. S. Liebson H. P. Whitworth (forwards).

CAMBRIDGE.—W. M. Wallace (King's) (back); G. H. Bickley (Pembroke), C. N. Lowe (Pembroke), C. Thorne (Clare), J. G. Will (Downing) (three-quarters); B. S. Cumberledge (Emmanuel), H. W. Thomas (King's) (halves); J. E. Greenwood (King's), A. E. Kitching (Jesus), P. C. Blair (King's), T. G. Fowler (Caius), A. W. Symington (Clare), A. W. Wilson (Pembroke), A. F. Maynard (Emmanuel), J. H. C. Lindesay (Sidney) (forwards).

REMARKS.—Both Harkness and Stokes kicked well, but they must find touch more often. The three-quarters defended splendidly, but were not served well with passes for attacking movements. The halves rather overdid the touch-finding game when probably the more open game would have paid better. Points were badly wanted, and it was worth going "all out" to get them. However, except for a little too much kicking, the halves played well. Medlock, covering an enormous amount of ground, was on the ball constantly. The forwards played their true game all through the second half; they will make a great pack, especially if one or two get a bit more "shove on" in the tight.

GUY'S v. OXFORD UNIVERSITY.

The rain cleared off before this match commenced at Oxford on Wednesday, October 30th. A strong wind followed, drying up the ground and making a fast game possible. It was just the day to suit the Oxford men, and they made the most of it with a vengeance, running up the score of 5 goals and 3 tries, or 34 points, to 1 penalty goal, 3 points. Oxford were without Broster and the Hospital were without Stokes, so honours were about divided, though Stranack's presence would have been very advantageous. Guy's were the first to score, Medlock goaling from a penalty. Unfortunately this was Guy's first and only score, though at half-time they were only led by 14 points to 3. The 14 points were made up by 2 tries gained by Steyn and 2 by Geen, all of which were the outcome of clever and speedy passing, and, at the same time, there was some rather weak tackling by the Hospital men, who were far below their defensive form compared with the showing they made against Cambridge. Millett and Medlock, however, did their utmost.

Dingle was the first to score, for Bain to convert, after ends were changed. Londoun-Shand next ran through in very fine style, and Bain kicked the goal, bringing the total to 24 to 3. Then Knott made a fine opening which Geen took full advantage of, his try being goaled by Bain. Brown then got a try on his own, and Bain again converted, so that the final total read as above. Team:—

GUY'S.—A. H. Harkness (back); H. Millett, C. H. Nicholls, C. L. Curle, A. F. Rook (three-quarters); J. E. Davies, C. H. Medlock (halves); R. S. Kennedy, O. Parry-Jones, H. Daw, A. L. Anthony, A. B. Danby, A. W. A. Davies, H. P. Whitworth, C. H. Laver (forwards).

GUY'S v. STREATHAM.

This fixture ended in a win for the Hospital by 14 points to 3. The match took place at Honor Oak Park on Saturday, November 2nd. The start was delayed owing to the referee being detained en route and a Streatham player who found difficulty in finding the ground.

Guy's went off in most promising fashion, some of their handling being particularly smart. Only ten minutes of the play had elapsed before a very fine movement, in which most of the backs had a hand, ended in Stokes scoring a fine try. Medlock failed with the goal. The next score, which followed closely upon Stokes's try, was the result of a heady piece of play on Medlock's part. He flung the ball wide to Rook, missing Harkness. Rook gathered and fell over for a try, which Medlock goaled nicely. Kitching, the Streatham full-back, was severely tested, but he kept his line intact, and eventually found touch by the stand, from where Sawdoy got away and almost scored. Harkness was compelled to carry over to avoid a score. After the scrum Guinness cleared away, and Streatham were penalised in their 25, Medlock kicking a fine goal.

After ends were changed Millett just managed to save from Pirrie, but almost at once two free kicks were given against the Hospital, Pirrie being successful with the first one, but the last one was a fiasco, Medlock dashing up and spoiling the effort completely. Rook, who was playing well, was held in dangerous proximity to the Streatham line; then Davies was within an ace of scoring, but Kitching kicked out of danger. For a time Streatham had a good deal of the game, Millett doing good work and getting plenty of it, but eventually Guy's came again, Nicholls going through well and scoring. Medlock was not successful at the attempt to goal. Several times Nicholls got going well, but he was frequently tackled in possession. Davies and Medlock put in a fine run on the right, but no further score resulted, Guy's winning by 1 goal, 1 penalty, and 2 tries (14 points), to 1 penalty goal (3 points).

GUY'S.—H. Millett (back); A. L. Stokes, E. C. Nicholls, A. H. Harkness, A. F. Rook (three-quarters); J. F. Guinness, C. H. Medlock (halves); R. S. Kennedy, W. S. Stranack, O. Parry-Jones, A. W. A. Davies, A. L. Anthony, A. B. Danby, A. S. Liebson, H. P. Whitworth (forwards).

REMARKS.—Following on four matches within the fortnight, the team as a whole did not show so much energy as usual. This will doubtless be remedied. Kennedy played splendidly, while Davies was constantly up with the ball and tried his hardest throughout the game. Guinness made a useful deputy for J. E. Davies. Rook has improved greatly. Nicholls played selfishly, and should endeavour to use his wing man more. There is a time to hold on and a time to pass. Nicholls almost invariably holds on. Harkness played soundly, and gave Rook many opportunities, which he did his best with. Millett was excellent.

Births.

DOLL.—On October 28th, at 15, Park Road, Hampton Hill, S.W., the wife of H. W. Doll, M.R.C.S., L.R.C.P., of a son.

LITTLE.—On October 20th, at Wimpole Street, W., the wife of E. Graham Little, M.D., F.R.C.P., of a daughter.

MINETT, E. P.—On October 23rd, at 14, Gower Street, W.C., the wife of E. P. Minett, M.D., D.P.H. (*née* Ethel M. Connan) of a son.

MOBERLY.—On October 26th, at Avondale, Ditton Hill, Surrey, the wife of Alan V. Moberly, of a daughter.

Marriages.

HIBBERT—SHACKLOCK.—On October 23rd, at St. John's Church, Mansfield, by the Rev. W. Lilley, Wilfred Lawrence Hibbert, M.R.C.S. Eng., L.R.C.P. Lond., son of the late Mr. G. H. Hibbert, solicitor, and Mrs. Hibbert, of Mansfield, to Hilda Mary, third daughter of Mr. and Mrs. P. J. Shacklock, of Bleak Ridge, Mansfield.

STEVENS—PATCH.—On October 22nd, at Tunbridge Wells, G. J. B. Stevens, L.R.C.P., M.R.C.S., L.S.A., to Sarah Jane, youngest daughter of the late Mr. J. Patch, formerly of Merriott, Somerset.

Ed.—J. A. R.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 637.] NOVEMBER 23, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	469–472
Pass List	472
A Case of Tetanus	473–474
Appointments	474
Papers by Guy's Men	474
Vacancies for English Medical Men in the Chilean Navy	474
Midwifery in a Small General Practice ...	475
Guy's Hospital Christian Union	475–476
Change of Address	476
Transverse Markings of the Nails	476
The Ocular Changes found in Bright's Disease. Clinical Lecture by Mr. Ormond	477–480
Our First Two Cæsarians	480–481
Correspondence	481–483
London Bridge and the Borough in the Eighteenth Century (*continued*)	483–486
The Navy League	486
Reviews	487–488
Pupils' Physical Society	488

Passim.

IN our last issue we discussed the question of the waste of medical experience, and issued an appeal for more frequent and systematic contributions from general practitioners. Our suggestions, we are glad to note, have not been entirely unavailing, for we are able to print in this number some excellent correspondence on the subject. We have, further, in response to our appeal, already received a few contributions, some of which we are compelled to hold over for the present. By a curious coincidence *The Practitioner* for November also contains a useful article by an old Guy's man, entitled "Random Notes on General Practice." Our correspondent who signs himself "*Haec olim meminisse juvabit*," draws attention to several of the problems with which the general practitioner is particularly qualified to deal, and we hope that his letter may prove successful in stimulating research in these and other directions. Our second correspondent makes a proposal to the effect that occasional lectures should be delivered at the hospital by a general practitioner. We find ourselves entirely in accord with his proposal, and would ask the medical school authorities to give it the full consideration which it deserves. It should surely not prove difficult to arrange for one or two such lectures to be given in the course of each session. Undoubtedly they would be thoroughly appreciated.

QUESTIONS relating to the advantages and disadvantages of receiving instruction solely from the hands of specialists offer wide scope for discussion; incidentally they provide us with an opportunity of passing in review some of the many interesting data and observations collected in the Sixth Bulletin (which is concerned with Medical Education in Europe) of The Carnegie Foundation for the advancement of Teaching. The volume comprises an exhaustive and valuable survey of the subject in its entirety, and in an age of which the watch-word is Reform and in which Educational Reform is considered to be a particularly urgent necessity, should prove an admirable aid to the solution of certain difficulties. The argument of the book, in the main, resolves itself into a comparison of the British, German, and French methods of medical education, and a discussion concerning the relative merits of university and institutional systems. Although it is primarily compiled for the benefit of American Medical Education, it cannot fail to act as a strong stimulus, and a suggestive reminder of their shortcomings to all European Schools.

We are glad that emphasis is laid upon the importance of general educational reforms, and on the fact that medical educational reform is essentially an educational, and not a professional, problem.

THE comparative values of a previous classical or scientific training are dealt with at length, and the problem of how to conserve within reasonable limits the length of the medical curriculum,

without omitting essential studies, is also fully considered. The conclusions are definitely in favour of teaching the preliminary scientific studies during the later years of secondary education, previous to the student's admission to a medical school or university. Among other obvious advantages it is urged that better application is obtained during the final period spent at school than in the course of a first year spent, under small restraint, in a new town.

The German system of instruction in the medical sciences (that is to say, in anatomy, physiology, pathology, bacteriology, pharmacology, and hygiene) is contrasted with the English system. The main distinction seems to be that in Germany the subjects are taught as being in themselves of interest and importance, whereas in England they are regarded merely as utilitarian studies, and lose thereby much of the intellectual stimulus and actual benefit which it should be their purpose to supply. The undoubted fact that in England there has been neglect of these studies, with the single exception of physiology, is especially emphasised. It seems, however, that the British individual student has better opportunities for practical work than his German prototype, while lectures are of a higher order on the other side of the North Sea.

Especially interesting is the discussion on the function of the clinical teacher. Attention is drawn to the fact, that although it is generally conceded that the basic sciences of chemistry, physics, and biology, and in more progressive countries than our own, the medical sciences of anatomy, physiology, pharmacology, pathology, bacteriology, and hygiene, must be taught by persons specially qualified for the task, it has not been so generally granted that the clinical teacher should also be primarily a man who devotes his life to teaching and research. "This reform is the next great step to be taken in the improvement of medical education in the United States and Great Britain," is a sentence occurring in the introduction.

This, of course, is entirely in accordance with the legitimate conception of medical education as an *education*, and not as a professional incident, but we should rather hesitate in giving judgment in favour of an extension of the reform so far as to effect the clinical teacher. That it should apply to the teachers of all the so-called medical sciences we entirely agree, and we are not blind to the disadvantages that arise from the customary combination of consultant and hospital teacher. For instance, it is obviously impossible, even for a man of genius, to combine a consulting practice with the research in which his intellect should, ideally, find a field for employment, and also with efficient instruction of Students. One obvious result of the public's demand for good consultants, and the good consultant's natural desire for a better income, is that the consultant often ceases to be productive of valuable contributions to Medical Science. Many a promising man ends his days as a successful physician or surgeon, without ever having "lived up to" the scientific promise which marked his early and unhampered days. All this is very true, but we would point out that research is becoming more and more the perquisite of the specialists in the medical sciences; that actual clinical research is a limited study; and that, in consequence, there is not so great a need for clinicians, with time to spare for research as the report would have us believe. Moreover, admitting that good consultants are necessary, it is obviously essential for them to have the means, that is to say, the material obtainable in large hospitals, of becoming good consultants. Throughout the volume we feel that the evils resulting from "the proprietary institutions," as the majority of the British Medical Schools are termed, are somewhat exaggerated.

Lack of space unfortunately forbids consideration of the valuable chapters on examinations and their aims, on quackery, and on the financial aspects of the question, but we would heartily commend the volume to all such as are interested in the momentous topics with which it is concerned.

Dr. Boycott has been appointed to the Chair of Pathology at Manchester. He has our very hearty congratulations. It is, however, with a

full sense of the loss which Guy's will sustain as the result of his withdrawal, that we proffer them. Dr. Boycott's excellence as a teacher and fame as an investigator are only surpassed by the charm of his personality; and his stalwart figure will be much missed in the hospital and laboratory precincts. As a sequence to previous honours he first became connected with Guy's by his appointment to the post of Gordon Lecturer in Pathology; later, he was for two years on the staff of the Lister Institute of Preventive Medicine, before returning to the Hospital in 1907 as Lecturer in Pathology, the post which he has capably filled ever since. He will take with him to Manchester the good wishes of all who have known him here.

On Wednesday, November 13th, a Dinner was held at the Criterion Restaurant, in honour of Dr. C. H. Rippmann. A number of his old friends and pupils were present, and the popularity of our late Medical Registrar was never more in evidence. A presentation was made, consisting of six copies of Mr. Hanslip Fletcher's recent pictures of the Hospital, tastefully framed, and speeches of mingled regret and eulogy were delivered, and vociferously supported. It is gratifying to feel that "Rip's" departure from Guy's has not been allowed to take place without some recognition of the honour and affection which he earned by his four years of arduous and unselfish labour in our midst.

On December 6th, at 8.15 p.m. in the Physiological Theatre, the Guy's Hospital Musical Society will give the First Concert of the Winter Session. An exceptionally attractive programme of music and song is to be provided, and will include madrigals and part songs by Byrde, Dowland, Pearsall, Brahms, Stanford, Wood, and Walford Davies. The best of last year's talent is again available, and the list of soloists, which includes Mr. Clive Carey, Mr. Harrington, Nurse Millar, and Nurse Fletcher, should of itself attract a large audience.

We hear also that an effort is being made to revive the orchestra which Mr. Eason so ably led two years ago. It seems highly probable that the Musical Society will this year acquit itself even more successfully than hitherto, and certainly the increased support which it is receiving and the interest which is being displayed on its behalf should tend towards such a consummation. We hope that the public will hasten to perform their share by buying tickets and providing a full audience; we can certainly assure them of a most pleasant evening in return for their small outlay. Tickets (price 2s. 6d.) can be obtained on application to the Hon. Secs., Messrs. T. W. Sheldon and H. Q. F. Thompson, or to the Matron.

The results of the recent examinations for the License in Dental Surgery, which are recorded on another page, should not be allowed to pass without comment. The candidates from Guy's have on this occasion scored a greater percentage of successes than for many years past, and we would hasten to congratulate both them and the Dental School on their achievement. It seems that these really excellent results are in no small degree due to alterations which have been effected in the teaching régime. The newly instituted classes in Surgery, conducted by Mr. Hughes, appear to have been especially beneficial, for no less than 24 candidates out of 29 passed in this particular branch. In Dental Mechanics there were only 2 failures among 24 entries, and in Dental Metallurgy there was also a high proportion of successes. It is pleasing, at a time when the number of Dental Schools is on the increase, to realise that Guy's is thus capable of maintaining its pre-eminence as a practical teaching school.

We learn, with great displeasure, that considerable damage has been done to certain of the Swimming Bath accessories. The breaking of the spring-board may, perhaps, be partially the result of wear and tear, but the same causes cannot be held responsible for injuries done to the drying-racks, the gymnastic apparatus, and the marble coping of the bath itself. We should like to take this opportunity of reminding men that it is entirely through the generosity of the Matron and the Nurses' Home Authorities that

they are allowed access to the Swimming Bath at all. Surely, it is scarcely gentlemanly that they should abuse these privileges (or politic to run the risk of losing them), by unnecessary exhibitions of destructive horse-play. The Clubs' Union has undertaken to defray the expense of the repairs. We hope it will never again be compelled to incur a similar responsibility.

We print on another page an announcement of a meeting which is being called for Thursday, November 28th, to consider the question of establishing a Club in connection with the University of London. The proposal is, we consider, an admirable one, and should find plenty of supporters. Such an institution should be of the utmost value, both socially and academically, to members of the University, and if, as seems possible, it should be decided to provide accommodation for the meetings and business of Undergraduates' Societies, and for other University purposes, it should also help in the work of uniting into an actual University units which have hitherto been scattered and separate.

On Saturday last London defeated the Springboks at Twickenham. Guy's was well represented in the London team, no less than four of our men having been chosen to play. The well-merited victory was, we feel sure, due in no small degree to the efforts of Messrs. Kennedy, Hind, Millett, and Stokes.

The next meeting of the Physical Society will be held on Wednesday, November 27th. Dr. Aikin will read a paper on "The Science of Phonology," and the chair will be taken by the Hon. President. It is to be hoped that the meeting will be well attended.

Heartiest congratulations to Mr. H. Gardiner on his marriage, which took place on Tuesday, November, 12th.

J. A. R.

Pass List.

Royal College of Surgeons of England.

Licence in Dental Surgery.

First Professional Examination, November, 1912.

Mechanical Dentistry and Dental Metallurgy.

Barnes, J. M.
*Beacock, J. W.
†Bevis, D. A.
Bradley, R. G.
*‡Brough, K. C.
Bulleid, A.
†Bullpitt, C. M.
Clewer, D.
Coe, W. E.
†Debenham, L. S.
*Duggan, H. C.
*‡Dyke, V.
*‡Edwards, H. J.
*Henry. M. G.
*Howe, G. H.
*‡Johnson, S. E.
*‡King, P.
*Laver, C. H.
Llarena, E. F.
*‡Lloyd, W. G.
McAlpin, K. F.
*Nicholls, E. C.
†Oates, J. L.
†Parkes, H. P.
†Pearce, D. G.
†‡Pickett, R. J.
Richards, L. P.
†Viljoen, W. J. R.
Welton, F. E.
Whitten, M. G.

* Mechanical Dentistry only.
† Dental Metallurgy only.
‡ Completion of Examination.

Final Examination for the Licence in Dental Surgery. November, 1912.

†‡Achner, C. A.
†‡Adderley, W.
†‡Bailey, H. L.
*Ballard, R. W.
†‡Barr, D. H.
†‡Boutwood, R.
†‡Buck, A. D.
*Charles, G. F.
*Clarke, A. S.
*†‡Cooper, T.P,
*Donn, R. D.
†‡Dumayne, H. O.
*Edwards, C. H.
†‡Evans, J. E. R.
*Flooks, W. T.
*Forrest, A. G.
*Gaverick, R. H.
*Glover, C.
*Haine, C. F.
*Hanreck, S.
†‡Harris, L. P.
*Hopson, M. F.
†‡King, R. M.
†‡Lawrence, F. W.
*McFarlane, P. S.
†‡Mayer, J. W.
*Morrish, D. B.
†‡Neely, H. B.
*Palmer, J, S.
*†‡Partridge, W. D.
†‡Pasmore, I. W.
*†‡Phillips, C. J.
*Purdom, H. N.
*Salsbury, A. T.
†‡Schneider, M.
*Veale, R. M.
*Warner, G. H.
*†‡Webb, S. J. F.
*Windermer, L. D.

*Part I. only. †Part II. only. ‡Completion of Examination.

University of Oxford.

Degree of D.M.

A. R. Wilson, B.Ch.

Prizes.

At the conclusion of the 21st Session of Junior Class of Instruction, R.A.M. College, the following success was attained by Lieut. on Probation J. B. Hance, I.M.S. :—

Parkes Memorial Prize 1st Hygiene, $\frac{145}{200}$.
Fayrer Memorial Pathology, *proxime accessit* $\frac{147}{200}$.
Ranal Martin Tropical Medicine, *proxime accessit* $\frac{93}{100}$.

A Case of Tetanus.

H.P. æt. 13 years, was admitted to John ward on October 3rd, for tiffness of the facial muscles and abdominal pain. The patient had cut the left fore-finger three weeks previously with a piece of window-glass, and had attended the back surgery for a fortnight in order to have the wound dressed. The finger had healed completely a week before admission. On September 27th, the patient's mother noticed that he could not open his eyes readily in the morning also that the palpebral fissures appeared to be narrower than usual. The following morning she noticed that the patient's facial expression had altered, the mouth appearing to be fixed and occasionally undergoing slight spasm. During the two days following these symptoms increased, and the patient also complained of colicky pains in the abdomen. These pains were not frequent but they were always accompanied by facial spasm. The patient's mother also stated that when he thought he was unobserved she had noticed that he tried to pull his lower jaw further down when the mouth was already partially opened. Two nights before admission the patient had a fit of spasm sufficiently intense to double him up. The seizure lasted about two minutes, during which time the patient was unable to speak or move. This attack was repeated upon the evening and morning before admission, each fit was said to have been longer and more intense than the one preceding it. There had been no difficulty or pain on swallowing. On admission the patient's facial expression was very characteristic. The eyes were screwed up and the palpebral fissures narrowed. The corrugator supercilii muscles were in constant contraction, which produced a frown, not of anger but rather of surprise, for the eyebrows sloped upwards towards the centre of the forehead. The mouth was set, and its angles were depressed, the furrows which run downwards and outwards from the alæ nasi, being very marked.

There was a certain degree of trismus, but it was not marked; as nearly as could be judged the jaws were able to be separated about two-thirds of the maximum distance from each other. The muscles of the neck were stiff and the patient complained of slight pain when he attempted to bend forwards when in a sitting posture. The abdominal muscles were rigid but not tender, no change was present in the limbs. The pupil reflexes were normal, the tendon reflexes were brisk, as also were the abdominal reflexes. There was a flexor plantar reflex on both sides. The patient's temperature was 100° F., and his pulse was 80 per minute.

A diagnosis of chronic tetanus was made, and Mr. Rowlands was asked to give his advice as to the desirability of amputating the left forefinger. Having regard to the fact that the wound was completely healed and that the symptoms of tetanus had developed slowly, amputation was not advised, but it was suggested that some anti-tetanic serum should be injected around the branches of the median nerve at the base of the finger.

The patient was taken to the theatre, and while being prepared for an anæsthetic he had definite tetanic spasms of the facial and abdominal muscles. He cried out and complained of abdominal pain, and a desire to defæcate but nothing was passed per rectum. The facial muscles twitched, and the abdominal muscles contracted and became rigid for a minute and a half. The spasm was then relieved by the anæsthetic. A lumbar puncture was performed, and 45 c.c. of clear fluid under some pressure were withdrawn.

Following this procedure 65 c.c. of anti-tetanic serum were injected into the spinal canal; 5 c.c. were injected into each side of the base of the left forefinger upon its palmar aspect and 125 c.c. were injected, at four different points, beneath the skin covering the abdomen—the total dose being 200 c.c. Before the patient was returned to bed, and while he was still semi-unconscious from the anæsthetic, he had a strong fit of spasm, involving the muscles of the face, back, and abdomen; the hands were at the same time affected, and the patient assumed a position of opisthotomus for half a minute.

The further treatment of the case consisted in keeping the patient lying flat in bed for three days, the bed being placed in a dark corner and screened off from the ward; the foot of the bed was raised in order to aid the gravitation of the serum from the lower end of the spinal cord to the base of the brain. Chloretone, grs. iii., eight hourly, was given for a week, the following mixture was also administered:—

℞ Tr. Iodine, ♏v.
Aq. Chlorof. ad., ʒi. t.d.s.

The diet consisted of fluids, eggs, and minced meat for four days, after which the patient was put on light full diet. His progress was uninterrupted, and his recovery complete. There were a few slight fits of spasm during the first three days after the injection of the serum, but they were scarcely more than momentary.

Twelve days after admission the patient was walking about the ward, and on October 17th he was discharged cured.

Points in the case which demand especial attention are the gradual onset of symptoms which favours a good prognosis, further that amputation of the original site of injury is rarely indicated in these so-called chronic types of tetanus, although cases are recorded in which the symptoms have lingered on in spite of all other treatment until the infected wound has been removed.

As regards the large dose of serum that was given in this case it has been shown by recent work by Dr. MacConkie, of the Lister Institute, that doses of 100–200 c.c. give the most successful results. Unfortunately the serum in these doses is expensive, the 200 c.c. given to the case in question cost £5. No uniform system of standardisation has yet been adopted, and many sera are not found to be of the strength indicated on the bottles. The serum is more efficient if injected into the

spinal canal, after drawing off as much fluid as possible, and also intravenously as well as locally. The solution of iodine that was given was also suggested by Dr. MacConkie who has found that an exhibition of this drug is of great value in these cases.

A general enlargement of the lymphatic glands was noticed in this case from the day of admission until four days following. The enlargement was only slight and quite painless, and was most marked in the groins and axillæ.

The patient was under the care of Dr. Pitt, by whose courtesy these notes were permitted to be published.

S.W.

Appointments.

Naval and Military.

R. A. M. C.

Major L. Humphrey has been selected for the appointment of Specialist in Operative Surgery at the Military Hospital, Chatham.

Captain F. M. Ommaney has been appointed to the Eastern Command.

Captain W. H. S. Burney has been appointed to the Second (Rawal Pindi) Division.

Indian Medical Service.

Lieut-Colonel S. H. Burnett has been appointed Presidency Surgeon, Second District, Bombay.

Special Reserve, R.A.M.C.

To be Lieutenant on Probation, M. K. Nelson, dated 15th October, 1912.

Civil.

Blackman, H. G. Barham, M.R.C.S., L.R.C.P., has been appointed Honorary Assistant Anæsthetist to the Norfolk and Norwich Hospital.

Boycott, A. E., M.D., Ch.B. Oxon., has been appointed to the Chair of Pathology, University of Manchester.

Layton, T. B., F.R.C.S., has been appointed Throat and Ear Surgeon, Guy's Hospital.

Row, E. R., M.R.C.S., L.R.C.P., has been re-elected President of The Kilcoy Progress Association, Queensland.

Gazette Special Pathologist.

T. M. D., Harlow.—This is a malignant new growth having the structure of a lympho-sarcoma. It is composed of a delicate reticulum enclosing small round cells with deeply staining nuclei. It infiltrates all tissues in contact with it, and the presence of bodies, resembling Hassell's corpuscles, in it suggests that it arises in the thymus.

H. H. C., Northallerton.—This sputum is chiefly composed of blood with a little muco-pus, and tubercle bacilli are present in small numbers.

PATHOLOGIST.

Papers by Guy's Men.

J. W. H. Eyre, M.D., M.S. Durh.: Preparation and Standardization of Vaccine.—*British Medical Journal*, 9th November, 1912.

A. Alan Forty, L.D.S.: Some Sequelæ of Bridge Work.—*British Dental Journal*, 1st November, 1912.

E. P. Minett, M.D., D.P.H., D.T.M. & H., and another: Treatment of Leprosy by Nastin.—*Journal of Tropical Medicine*, 2nd September, 1912.

A Cheap and Simple Process for Combined Clarification, Decolourization, and Sterilization of Peaty Waters.—*Journal of London School of Tropical Medicine*, vol. i., part 3.

The Milk Problem in British Guiana.—*Journal of Royal Sanitary Institute, Colonial Supplement.*

E. P. Minett, M.D., D.P.H., D.T.M. & H.: Second Report on Nastin and Benzoyle Chloride Treatment for Leprosy (Parliamentary Blue Paper reprinted).—*Journal of London School of Tropical Medicine*, vol. i., part 3.

J. K. Pedley, L.D.S.: A Method of Giving Nitrous Oxide with the addition of Ether in Minor Surgery.—*British Medical Journal*, 9th November, 1912.

A. G. G. Plumley, M.B., M.R.C.S., L.R.C.P., L.D.S.: The Anatomy of the Antrum with Notes on some Acute Cases. Presented to the Annual General Meeting, B.D.A., at Glasgow, 8th August, 1912.—*British Dental Journal*, 15th November, 1912.

Vacancies for English Medical Men in the Chilean Navy.

MEMORANDUM.

1. The contract is to be for three consecutive years to serve on board ships of the Chilean Navy or in any Department dependent upon the Navy.

2. The rank and uniform will be that of Lieutenant of the Chilean Navy, and uniform must be worn on duty and always when on board. Full or Gala uniform is not compulsory.

3. The laws and regulations of the Chilean Navy must be conformed to.

4. The salary of such officers will be £30 a month for the first year, and £35 during the second and third years. They will be entitled to the usual naval rations in the same way as every other officer. When sent on commission away from their place of residence, they will be paid their travelling expenses in the same way as other officers of their rank.

5. The same leave will be granted as to other officers of equal rank.

6. The Chilean Government will pay the return First Class ticket from Liverpool to Valparaiso.

7. Applicants must be unmarried and remain so during the first two years of their contract.

Legacion de Chile.

Midwifery in a Small General Practice.

In response to the Editor of the Guy's Hospital Gazette who appeals for accounts from General Practitioners of the kind of work met with in private practice, I thought an account of Midwifery work would be interesting. I live in a purely agricultural district of about 1,800 persons, this number being the population of my poor-law district covering some 9,000 acres.

In eight years I attended 240 Midwifery cases, nearly 40 per cent. of whom were primiparæ, one primipara aged 45.

I find I have only recorded the sex of the children in 228 deliveries; amongst these 228 deliveries are 9 cases of twins, making 237 children, and the number of female births was 128 and male 109; of the twin births 5 were both girls and 4 both boys.

Nine cases of twins in 240 cases is a very high percentage; of the 9 cases of twins only 4 times did both children thrive, in 3 cases both died within 14 days, and 1 child survived in each of the other 2 cases. Two of the nine mothers had had twins before, one once and the other twice before. Four children were dead on delivery in the 240 cases, and B.B.A. occurred on 9 occasions.

Two of the 240 mothers died, one on the fourteenth day from pulmonary embolism, after a prolonged and difficult forceps labour, the other from rupture of the uterus; the head of her twelfth child, which weighed 11lbs., had been born 20 minutes before I arrived and found the mother moribund, and owing to absence of uterine contractions it took 10 minutes to release the shoulders. Abnormal presentations:—

Breech	10 times
Transverse	Once
Face	Once
Arm behind head	Twice

Chloroform was given 47 times for the application of forceps, turnings, suture of perinæum, or very nervous women. Hydrops amnii occurred three times, P.P.H once. Placenta prævia (marginal) once.

Nine cases needed catheterizing from 4 to 14 days after delivery, usually difficult forceps cases.

Puerperal mania, short but definite cases, only lasting a few days, were two in number. Three cases of eclampsia and one case of œdema and albumen without fits, all aborted at 7 months. One of these cases had complete paralysis of the hand and forearm (right) after the fits, but all power returned with the exception of the hand which is partially useless even now, six years after. All four of these cases had great mental trouble, and this appears to be to me the principal result of albuminuria in pregnant women.

Twice, I believe, the children were carried 10 months, they each weighed between 9 and 10lbs., and the finger nails were very long and ragged, and in each case I had been engaged for a month earlier.

Facial paralysis of the children (one-sided) occurred four times in forceps cases, all cleared up, but one case lasted 6 weeks.

I had to "turn" 5 times (twice after failing to apply forceps I found on introducing my hand into the uterus that the forearm was across the back of the head), once for placenta prævia, once for transverse presentation, and once for face presentation.

Abnormalities of the children:—Double hare-lip once, spina bifida once, 6 fingers both hands once, one case of deformity of bile ducts when the child became almost olive coloured before it died a few days old, and in twins once it occurred that each of them had no connection of rectum and sigmoid, only a thin fibrous cord which I found post-mortem. Five of the women had minor deformities of the bony pelvis which complicated labour considerably. One woman who has had two children, each nearly 9 lbs. and delivered by forceps with great difficulty, developed sciatica (right) lasting five to six weeks after each delivery.

Guy's Hospital Christian Union.

At a meeting held on November 14th at 5 p.m., in the Chaplain's Room, adjoining the Chapel, Dr. Ashton, of the London Missionary Society, a Medical Missionary for twenty years in North India, gave an interesting address.

He referred to the difficulties he had to face on first opening the work, such as learning the language and building his hospital, or rather, on account of lack of funds, converting an Indigo factory into a Hospital with Out-Patients' and In-Patients' Departments. He had to superintend the making of all his own furniture, including an operating table (he later explained its mechanism in detail, showing how his table, costing about two pounds, was equal to the expensive ones to be seen in surgical supply shops).

He conducted us through his hospital, consisting of three wards, an accident and ordinary ward for men, and one for women, a well-lighted operating theatre, Out Patient Department and Dispensary.

The cases he has to treat are measles, mumps, and whooping-cough, dysentery, etc. He has not seen a case of scarlatina, which appears not to exist in the plains, possibly on account of the great heat. In the operative line, the majority of work is on the eye, cataract being very common. Operations for radical cure for hernia, hydrocele, etc., are also frequent. Rarely the abdomen is opened as the relatives and patients object to this being done. Minor operations for opening abscesses and whitlows, and teeth extractions are performed in the Out-Patient department. Cancer is not very common; it frequently arises in ulcers and scar tissue, caused by burns on the abdomen and thighs, from the use of the "Kangri," a portable fire basket, used by the natives of the cold hills of Kashmir, which is suspended round

the waist under their robes. Satisfactory results are obtained by removing the affected area.

Dr. Ashton laid emphasis on the fact that it was a Mission Hospital. The patients know this, but so far from being prejudiced against the place, like being treated by a "religious doctor." The work is opened each day by the Out-Patients collecting in a waiting-room, which for the moment becomes a Mission Hall, where they hear the native Christians pray and preach the Gospel. Services are also held in the wards. Dr. Ashton, who is the only European, then examines the patients, being helped by the natives whom he himself has trained. He has to be chief nurse and doctor, there being no European lady to act in the former position. The patients in the wards are looked after by their relatives, who come from their homes to do so. The custom makes the In-Patient work most valuable, as the whole family hear and see the Gospel of Jesus Christ preached, and what is more important lived up to.

Dr. Ashton told us how he became a Medical Missionary. During his five years' medical course at Edinburgh University, he gradually drifted away from all that was religious, his whole standpoint in these matters changed, in so far that he was becoming almost an Unitarian. This was the case in spite of his father and mother being missionaries, and was largely due to the fact, that his whole time and energy were given up to his medical work and examinations. Fortunately for him such men as C. T. Studd and others were visiting the University, and at their meetings he resolved to join the Christian Association at the University, under whose auspices he was encouraged to do some definite Christian work, eventually being truly converted. This led to the desire to take up Medical Missionary work.

He again strongly emphasized the need for men going out as Medical Missionaries to be true followers of the Lord Jesus, who went about healing the souls as well as the bodies of those among whom he dwelt.

The next meeting will be held on December 5th, at 5 p.m., in the Chaplain's Room, adjoining the Chapel; the address will be given by Dr. Harold Balme, F.R.C.S.

Change of Address.

H. Gardiner, M.B., B.S., from "Inversnaid," West Heath Avenue, N.W., to 3, Rotherwick Court, Rotherwick Road, Golder's Green.

F. G. Hopkins, M.A., D.Sc., M.B., F.R.S., from 55, St. Andrew Street, to Saxmeadham, Grange Road, Cambridge.

B. R. Parmiter, M.B., B.S., from Guy's Hospital to the Evelina Hospital, Southwark.

D. S. Stevens, L.D.S., from 12, Southend Road, Beckenham, to 23, Old Burlington Street, W.

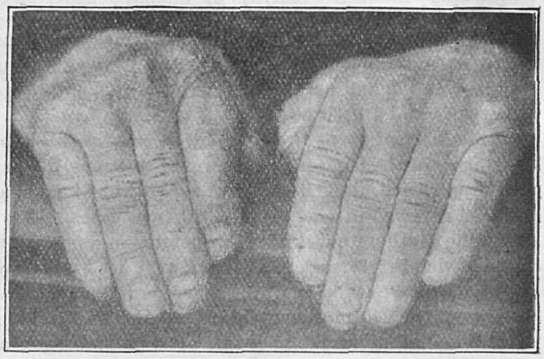
Captain H. Watts, I.M.S., from Civil Surgeon Wardha to Civil Surgeon Betul, C.P., India.

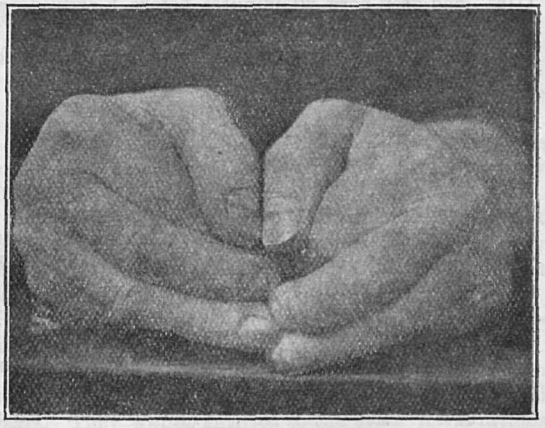
Transverse Markings of the Nails.

A CASE FROM DR. FRENCH'S OUT-PATIENTS.

THE accompanying photographs are taken from H. D., a male patient, aged about 40 years, who was treated in the wards for severe lobar pneumonia in June last. The interruption in the growth of the nails showed itself in the last week of September. It is complete in every nail.

L. D. W.





THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette," Guy's Hospital, London, S.E.*

The Ocular Changes Found in Bright's Disease.

CLINICAL LECTURE BY MR. ORMOND.

IN order to understand the ocular changes found in Bright's disease we must first of all understand that the symptom-complex which is designated Bright's Disease (after the eminent physician who did so much work on its pathology in this Hospital), was at one time thought to be primarily a disease of the kidneys, but is now regarded as a toxæmia due to deficient elimination of the products of metabolism; that is to say, Bright's disease is really due to a nephro-toxin circulating in the blood. The toxic agents causing nephritis in the human subject may be taken in the form of food, drugs, or poisons (organic or inorganic), or may be elaborated in the body as a result of defective metabolism. Alcohol, lead, mercury, arsenic, are causal factors. Over-eating and drinking, scarlet fever, syphilis, pregnancy are also agents in producing nephritis.

We may recognise a very early condition of Bright's disease before the advent of albuminuria, and pre-albuminuric retinitis has been described, and is occasionally seen. This is a precursor of ordinary typical albuminuric retinitis, it being characterised by small flame-shaped hæmorrhages lying in the course of the arteries, which disappear rapidly leaving no definite changes. It is not infrequently found that the ophthalmic surgeon is the first to suggest that all is not well with the patient's general health, and to urge further enquiry. The earliest symptoms of Bright's disease are vague, and include indigestion, lassitude, headache, and an "out of sorts" feeling; the only demonstrable organic changes occurring in the blood-vessels are visible in one place only, viz., in the retina. When we say we see the blood vessels in the eye, we really mean the blood column, as the vessel walls are normally invisible, being translucent, and of the same colour as the ground work on which they lie. Text books tell us that the early circulatory symptoms of Bright's disease are high tension pulse, thickened arteries, and hypertrophy of the heart, resulting from an increased peripheral resistance. What visual picture would represent this condition? A thickened artery may cause a diminished lumen if the thickening involves the intima, consequently the vessel wall being invisible, the blood column would look narrower, and the artery appear to be smaller. This is so in the early stages of Bright's disease. The encroachment on the lumen of the vessel may not be regular, so that the blood column may vary in size and apparent varicosities appear.

When a light falls on a polished tube, a long "light streak" is seen parallel with the long axis of the tube, due to a reflection of the light from the convex polished surface; this is so in the eye, for from the surface of the vessels, a "light streak" is normally seen lying along their axes; when the vessel walls are thickened, this light streak becomes brighter and harder in appearance, and a "gold wire" effect is seen. Another result of a thickened wall is the effect produced by one vessel crossing over another, as for instance an artery crossing over a vein. It is obvious that if the artery is thick and wide, and the lumen small, the underlying vein will be pressed on and its blood column hidden by the artery, so that the venous column will appear to be cut in two, and this "cut in two" appearance is characteristic of the early arterio-sclerotic change found in Bright's disease. Another change sometimes seen in the eye ground, is an increased tortuosity of the veins, especially the small vessels near and on the optic disc. So long as the vessel walls remain transparent they are invisible, and can only be recognised as altered in their thickness and width by indirect evidence; when, however, they lose their transparency they become directly visible as white streaks, ensheathing the blood column, and in this condition the perivascular tissue and lymph channels become involved.

Lastly, the vessels may, owing to a local blocking of their lumen, become completely impervious to the blood-stream and thrombosis or embolus result.

The changes in the retinal circulation associated with early Bright's disease then, are alterations in the width of the blood column, in the shape of the vessels, in the breadth and brilliancy of the "light streak," the presence of visible or opaque vessel walls and lymph sheaths, small

retinal hæmorrhages, and, in addition, a group of symptoms associated with complete blocking of the lumen. The vascular changes found in the fundus oculi in Bright's disease are essentially the same as the changes found in primary arterio-sclerosis, and in diagnosing the ætiology of the changes found by the ophthalmoscope we must take into consideration the age of the patient. Arterio-sclerotic changes are more commonly found now than previously, and more in some nationalities than others. The pathological change found in the small vessels corresponds to an endarteritis and endophlebitis, and is characterised by proliferation of the endothelium of the retinal vessels and the new formation of connective tissue, especially of elastic fibre. The vision is not affected in any way in these slight and early conditions, and the patient is usually quite unconscious of anything wrong with his sight or ocular condition, indeed, these changes are usually found during the course of a routine examination and are not looked for as a result of any subjective suggestions.

We may now pass on from these slighter changes to the grosser and more obvious ones.

The presence of small flame-shaped or round hæmorrhages in the retina is the earliest of the unequivocal signs of albuminuric retinitis, and by this time the influence of an auto-toxæmia may be traced, whereas, in the earlier stages, the changes were probably mainly the result of the altered mechanics of the circulation resulting from the increased peripheral resistance. So long as the endothelium of a vessel is intact the likelihood of a thrombus forming is not great, but when the inner wall of the vessel becomes rough obstruction to the blood flow is certain to result. Sometimes patients complain early in the course of the disease of blindness in one eye, coming on suddenly and lasting only a short time; this is due to a spasm of the vessel wall, the result of irritation by the altered blood, but gross obstructive disease of vessels is usually a later development.

The onset of albuminuric retinitis is evidence that urea is now present in the blood and that a condition of azotæmia has occurred. The arterial tension is always raised, and nephritic retinitis may be defined as an exudative and hæmorrhagic retinitis associated with an advanced degree of renal insufficiency. The whole of the central portion of the retina is involved, but the optic nerve behind the lamina cribrosa remains unaffected.

The retinitis must not be looked upon as resulting from the previous vascular changes, but as the direct result of a toxæmia, as the vascular lesions may or may not be present.

With the onset of a definite toxæmia the field of change passes beyond the vessels to the retinal tissue itself, the nerve elements and optic nerve fibres undergoing changes. Ophthalmoscopically we notice increased œdema, both a diffuse transparent exudation as well as a circumscribed opaque one. The œdematous fluid collects in the retinal tissue and subretinal space and is at first quite transparent, but subsequently loses its transparency and turns opaque, owing to the formed elements in it increasing and the fluid parts being partly re-absorbed. This causes little soft grey opaque islands to be formed, especially in the macula area, and owing to the arrangement of the fine sustentacular fibres these opaque areas run together and create radiating lines, having the macula lutea as the centre; when complete a white star-shaped figure is produced at the macula, having a reddish swollen centre. The toxins are also responsible for producing a definite inflammation of the optic nerve head, which becomes swollen and congested, and, in some cases, simulates a papillitis. Soft grey opaque areas are found near to and around the optic disc, which grey areas become gradually more opaque and white and are often mingled with hæmorrhages, both flame-shaped and circular, the flame-shape being due to the radiating arrangement of the optic nerve fibres which spread out in all directions from the optic disc as centre. The white opaque areas also often have a flame-shape too, and may completely cover over portions of the vessels, giving an appearance of discontinuity in their course. By this time the vision is suffering and the patient's concern regarding his condition is very greatly increased by his failing sight. Later, definite degenerative changes take place

in the nerve fibres and further opaque areas are found. A sudden and rapid failure of vision may now occur as the result of a thrombosis of a vein or an embolus of an artery, and if the circulation is entirely stopped blindness will ensue.

If the vein is thrombosed, the arteries will appear to be unaffected, but the veins will be dark, turgid and tortuous, and the retina crowded with hæmorrhages. If the artery is blocked, the branches will be reduced to threads, the veins will be unaltered, and no hæmorrhages, or very few, will be present, and the retina show marked œdema.

I was once asked to see a case of acute nephritis in the medical wards, marked by extreme œdema of the conjunctiva; this was so swollen that it was difficult to see the eyeballs, but on examination I found that the retinæ were also detached, owing to an œdema of the sub-retinal space pushing the nervous membrane forwards. The patient recovered from this attack, and when I saw him months later the detachment had completely subsided, and the retina (much damaged it was true) had returned to its position and showed not the slightest trace of detachment; you see, therefore, that the ocular tissues may be involved in the general œdema.

In the Out-Patient Department a peculiarly bright conjunctival reflex can sometimes be noted in patients of moderately advanced age, so that it appears as if the eyes were full of tears, yet no tears fall. On investigating this condition it will be found to be due to an œdema of the conjunctiva. At the same time a few small sub-conjunctival hæmorrhages may be seen, and some tortuous cork-screw vessels. A careful examination of these cases generally reveals some other evidence of early renal trouble.

When the cerebral symptoms predominate, the toxic effect of Bright's disease is sometimes displayed by a sudden and complete amaurosis in eyes which may or may not have had pre-existing retinal changes. By amaurosis is meant blindness without existing ophthalmoscopic signs to account for the condition, that is to say, a patient may suffer from total blindness which developes suddenly during the course of albuminuria, and you may or may not find retinal changes. Of course, when retinal changes are present, they are not sufficient to account for the total loss of vision. The pupil may or may not react to light; the records differ. In those cases where the retina shows no signs of retinitis, and the pupil does react to light, the case must be looked upon as due to a lesion in the occipital lobes, and in all probability uræmic amaurosis is due to a cortical lesion, and not to a toxæmia of the nerve itself; the condition of the pupil is, of course, in these cases of the utmost importance in deciding the position of the lesion. If the blindness is complete and the pupil reacts to light, the lesion must be above the external geniculate body; if, however, the pupil fails to react to light, the lesion must be placed in the nerve; recovery is usually complete.

Iritis and irido-cyclitis are not uncommon complications of Bright's disease. The iritis is chronic, and the amount of exudation from the iris and ciliary body seriously interferes with vision. These cases are characterised by their chronicity, the vitreous opacities, and the deposits on the back of the cornea. Frequently, owing to the interference with the passage of aqueous through the pupil, secondary glaucoma sets in, necessitating operative interference in patients who are not suited for it; these cases are anxious ones, and the success of all treatment depends on the improvement of the renal condition and of the general health. Sometimes, however, the deterioration of the vision is arrested, and the patient may retain useful sight. The cause of these infections is not, I think, the presence of the uræmic toxin, but rather the result of the patient's lowered resistance to septic infection from the mouth, alimentary or genito-urinary tract, and various experiments have shown that patients suffering from Bright's disease, diabetes, etc., have a lowered resistance to infection by various pyogenic organisms. We need, however, more direct evidence on this point, and I mention it to you in the hope that some of you may be stimulated to carry out work on this point, and record your observations. Cataract is not, in my experience, a complication of Bright's

disease, and is rarely found in association with it.

Of course it is probable that in many cases of albuminuric retinitis, the choroid is also affected, the inflammatory and degenerative processes extending to it. Apart from this, however, there is an albuminuric choroiditis, arising primarily and independently of any retinal change. In any case of choroiditis in which the ætiology is obscure, the urine should be carefully examined, and albumen sought for.

The main ocular changes then in Bright's disease involve the retina and uveal tract. They have been described in association with all forms of disease of the kidneys, but are commoner in the chronic forms. Where pregnancy is complicated with renal trouble, the retinal changes seem to be much more marked and severe, and it may be necessary to artificially terminate the pregnancy if the sight is threatened, as marked improvement in the retinal condition has generally followed this treatment.

Our First Two Cæsarians.

(From *The Nursing Mirror and Midwives' Journal.*)

DEAR SIR,—I think this case is well worth a corner in the GAZETTE. There are many about the Hospital who will remember the Chinese Nurse trained at Guy's. As you will see, she is now Matron of the Tientsin Hospital, North China, and this is their first venture in the way of Cæsarian Section.—Yours sincerely,

October 15th, 1912. J. H. TARGETT.

BY THE MATRON OF THE TIENTSIN HOSPITAL.

THERE had been great excitement in our little hospital in Tientsin. Cæsarian sections are seldom necessary in China, deformed pelvis being very rare, but, strange to say, within ten days two patients were admitted into the hospital on whom it was absolutely necessary to perform a Cæsarian operation.

The first patient's history was as follows: I was asked to attend a confinement some little distance from the hospital, near the north gate of the Chinese city. The patient's husband and mother came for us, and I immediately went with one of the nurses. On arrival at the patient's house her condition seemed very good. The first stage of labour had just begun, and was very slow. Everything seemed perfectly normal until I attempted to make a vaginal examination, when I found it quite impossible, as the vaginal orifice was almost occluded, barely enough passage being left to admit a lead pencil. On inquiry I found that this was the patient's second pregnancy. During her first confinement she had been attended by one of the much-dreaded old Chinese midwives, who used iron instruments made by the village blacksmith, and brought away the child in small pieces. One cannot think how the mother ever got well, considering how very much torn she was, so much so that the vagina was almost full of scar tissue, and the patient told me she was unconscious for days and had months of fever. It was obvious that to deliver the patient naturally was quite impossible, so after a good deal of persuasion and threatening to leave the house, we managed to get her to come to the hospital. But getting her into the hospital was not half the battle. Two of the American army doctors, who have been kind enough to offer their services in any emergency, were telephoned for, but when they arrived the patient and her relations refused to allow a man doctor, especially a foreigner, to enter the room. What were we to do? A Cæsarian section seemed to be the only hope, and the doctors had advised it after hearing the patient's history. Labour was advancing, and there was no time to be lost. It was hopeless to talk to the relations. They would not hear of a man doctor doing the operation. After wasting about an hour talking, the patient, beginning to suffer, at last consented. We also got the husband's consent, only on condition that it was to be kept a secret, especially from the relations, who still think that Dr. Kin and myself performed the operation. It was a relief to get to work. The operation lasting about an hour, was a great success, both mother and baby doing well. We were so thankful for this, as we had insisted upon the operation, and had the patient died we should have had a very bad time.

The nurses were most interested, as it was the first operation of its kind they had ever seen. The mother made a splendid recovery, and was able to leave the hospital with little Cæsar in twenty-three days after the operation.

Our second patient, a very sad case, was not so successful. We were also called to this patient, and on arrival found her in a dreadful condition. She had general tuberculosis, very bad scoliosis, and hip disease, consequently the pelvis was deformed as badly as it could be, and she had not stood up for six years. This was not the only trouble. She had been in labour three days, and during this time the old midwives had tried to deliver the patient naturally, and with constant handling she was already badly infected, the vagina and external parts being very much swollen and ulcerated. However, we soon got the patient into the hospital and the operation performed immediately by the same doctors who performed the first one.

The patient stood the operation very well, and the baby, quite a healthy-looking child of six and three-quarter pounds, was quite all right, but the mother died four days after the operation. We are all so proud of our two Chinese Cæsars, and have called them Cæsar the First and Cæsar the Second, their Chinese names being

"Hsi-sa," pronounced "She-sah," which means a happy Buddha, and is the nearest Chinese name that sounds at all like the English Cæsar. As far as we know, our first Cæsarian is the only case in North China where both mother and child have been saved so successfully.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—ED., G.H.G.]

DEAR SIR,—On Wednesday, November 13th, a large number of my old friends at Guy's made me their guest at a dinner, and presented me with some beautiful pictures of the hospital. The honour they did me will always mean very much to me throughout my life, and the pictures will remind me of the four very happy years I spent at Guy's among the men, who treated me invariably as their friend as well as Registrar. I would wish, through the GAZETTE, to thank my hosts and all the other men for having helped to make my four years at Guy's as happy as they were—they could not have been happier. I cannot say how much I appreciate their kindness and good will. I shall always be very much their debtor.—Yours sincerely,

C. H. RIPPMANN.

Queen Charlotte's Hospital,
Marylebone Road, N.W.

The Waste of Medical Experience.

SIR,—Your editorial in to-day's (9th November) Passim touches on a point I had often, had I dared, written you on.

Most of us become General Practitioners—and, then, so to speak, dead. When we are newly qualified, most of us, should the opportunity exist, might become expert surgeons, physicians, or bacteriologists—but general practitioners, no, emphatically no! Please take this statement with a large grain of salt; it is, in the main, true.

We are educated medically by expert surgeons, physicians and bacteriologists, and largely look upon things through their spectacles. General Practice, the Navy, Army, Indian, and other medical services are sealed books to us, and, yet, out we go; often investing considerable sums, on a career in which success is vital to us. And we embark in this career as incompetent, in a way, as the babe unborn.

I wish Guy's would start the fashion of having, once or twice a year, a lecture by one of her General Practitioners to newly qualified men. And let it be a lecture according to a fairly strict syllabus—taking in such matters as partnerships, financial matters, and ethics generally.

The day of the top-hat, bedside manner, baldhead and pleasant smile has gone.

Finally, and entirely without his permission, I would suggest, as a practical beginning to this scheme, that my old friend, Dr. Allport—Fatty Allport—of Moorgate Street, be asked to give the first lecture. It would be a fashion of invaluable service to Guy's men, and if once inaugurated, would be followed by other hospitals.

I have no facile pen, and, as is evident, no exposition, but believe me, Sir, you have raised a question of great importance to the generality of us.—I am, etc.,

GERALD SICHEL.

Sevenoaks.

SIR,—I have read your remarks upon the backwardness of the general practitioner to contribute to the common store of medical learning with much interest. It would be interesting to have the views of some of your readers upon the subject.

I have often asked myself the question, Why do general practitioners publish so little? (By the way, I have also sometimes wondered why those who are not general practitioners publish so much.)

There are some considerations which may explain, at least in part, our scanty output. One reason for it is the vast unceasing development of science itself. There was a time when material for important contributions to knowledge lay open to view upon every side. The main features of the several sciences have now been so fully depicted that the undescribed and the unstudied no longer lies in profusion on the surface.

Materials, laboratory equipment, and hours free from interruption are needed now more than they were in older days. Scheele was an apothecary's assistant, but it may be doubted whether any apothecary's assistant at the present day, even were one to be born with the gifts of genius which Scheele enjoyed, could make discoveries of value with such resources as Scheele found sufficient for his researches. When Sydenham, in the seventeenth century, wrote the "Complete Methods of Curing Most Diseases," the study of pharmacology and therapeutics dealt much more with the ill-observed obvious than it now does, and very much less with the well-observed and latent.

Yet another consideration is the difficulty which we all have in getting beyond the point of general impressions. A good deal of our experience, owing to the shifting and variable character of our data, never goes beyond this, and is for this very reason almost incommunicable to another, though it may be of value to ourselves.

Another difficulty which stands much in the way of the general practitioner is that to which you, Sir, very pointedly allude, when you mention the few nuggets of

gold which are found hidden amid an intolerable amount of gravel. Much of the work of a general practitioner, it must always be remembered, has to do with complaints rather than with disease. Alas! how much of our life's work consists in the discussion of pimples which ought (by reasonable human beings) to be disregarded, or in the desperate endeavour to settle domestic and personal difficulties which cannot, by any stretch of language, be called medical.

Still, Sir, your suggestion is too good to be lost; and I would rather encourage the desire which you have expressed, that general practitioners should make some attempt, or perhaps I should rather say, should make a bolder attempt than they do to give their ripe experience to the world.

I will, with your leave, jot down one or two of the directions in which, perhaps, the knowledge of the general practitioner may be of special use.

a. We ought to know more than we do about the common infectious diseases. A question which is continually asked, and which at present allows of no satisfactory answer, is this—How soon after becoming infected does an infected person (say a child with mumps or with whooping cough) become infectious to others. The text books are painfully reticent on this matter. Either they take no interest or know nothing about it.

Yet it is one of great importance. Perhaps it may be suggested as a suitable subject for a kind of collectiv investigation, the results of which might form part of Vol I. of your proposed Collective Experiences.

b. The mutual action of simultaneous morbid conditions is still not well known. Simultaneous or mixed infections are recognised, but what of the more chronic states? What, if any, for instance, are the relations of gout and bronchitis, and what, if any, is the effect of chronic renal disease in ordinary life, and on intercurrent diseases and accidents.

c. We have still much to learn of the remote effects of serious operations. Post operative neurasthenia, for example, is a very real thing. We (the patient and the general practitioner) are still struggling with it many months or years after the brilliant operation has been recorded among the number of the successes, and the hospital or nursing home has been long left behind.

Surely, too, we may have something yet to learn as to the remote consequences of the more extensive surgical interferences with the viscera. It may be that the entire effects are not immediately produced, and that something of interest remains to be learned as to these cases in the course of their subsequent lives.

Here too the general practitioner must be the observer and recorder.

Doubtless other, and yet better, ideas will occur to many of your readers upon this interesting topic, and I hope that many of them may find their way to the Editorial Chamber.—Yours truly,

"*Haec olim meminisse juvabit.*"

Out-Patent Hygiene.

SIR,—In the GAZETTE for September 2nd, 1911, some comments were made in Passim on the importance of giving directions to patients in regard to personal hygiene. The especial importance and value of such directions, in the case of patients suffering from venereal disorders, was pointed out, and the very excellent suggestion that a system of printed forms—similar to those in use on infant feeding—should be introduced, was also made.

The comments and the suggestion both seem to have borne amazingly little fruit, and it is for this reason that I again draw attention to the question. From recent observations in the ordinary Out-Patient Departments it still seems to be the exception, rather than the rule, to give adequate advice to patients suffering from syphilis or gonorrhœa, either in regard to the contagiousness of their complaint, or in regard to the length of time during which it is essential for them to remain under treatment. It must be generally realized that prophylaxis in these diseases is all-important. Why, then, does this neglect continue?

I believe I am right in saying that female patients are given some advice before leaving the Hospital. It is even more important that male patients should receive advice.

I should like to make another suggestion to the effect that a red-cross bowl should be supplied at Out-Patients, in addition to the ordinary bowl of carbolic. One frequently observes the rinsing of hands or spatulæ in the common carbolic after examination of a venereal case, and the use of a spatula from the *same* solution on the next patient. Now, although the spirochæte is a very short-lived organism, it is surely running an unnecessary risk to be so economical of time and trouble.—Yours faithfully,

ASEPSIS.

Proposed Club in Connexion with the University of London.

DEAR SIR,—In November, 1909, Dr. (now Sir) Henry Miers, as Chairman of a Committee which had been formed for the organisation of a Club in connexion with the University of London, issued a circular letter to members of the University with the view of ascertaining the amount of support which a Club, if established, would be likely to receive. The replies, which numbered more than 500, showed that the proposed Club would be welcomed by many Teachers and Graduates; but the evidence as regards students was less satisfactory.

A full report on the scheme was presented to the Senate of the University. After careful consideration by various Committees, the Senate, on March 29th, 1911, resolved:—

That it is not desirable, in present circumstances, that a Social Club should be established in connexion with the University, of which both men and women undergraduates could be members.

That the Senate would welcome the formation of a Club for Graduates, Teachers, and Officers, and would be prepared to consider an application for an annual subvention if the premises provided satisfactory accommodation for the meetings and business of Undergraduates' Societies and for other University purposes.

The undersigned, being graduates or teachers who expressed willingness to join a Club, if established, have made arrangements for a meeting to be held at the University on Thursday, November 28th, 1912 (Foundation Day of the University), at 6 p.m., at which the question of establishing a Club on lines approved by the Senate will be considered, and such action taken as may be thought desirable.

It will not be possible to communicate with all Graduates, Teachers, and Officers of the University, but it is to be understood that all persons concerned are invited to attend the meeting. Your assistance is asked in making the meeting widely known.

Any correspondence relating to the meeting may be addressed to Mr. R. J. Wickham Hurd, LL.B., at the University of London, South Kensington, S.W.—Yours faithfully,

ALFRED S. E. ACKERMANN, B.Sc.
JOHN W. ADAMSON, B.A.
JULIUS M. BERNSTEIN, M.B.
ERNEST ROCK CARLING, M.B., B.S.
CLARA E. CARPENTER.
JOHN DEWAR CORMACK, D.Sc.
JOHN A. DOUGLAS, B.A., B.D.
WILLIAM H. ECCLES, D.Sc.
CLIFFORD B. EDGAR, B.Mus.
WILLMOTT H. EVANS, M.D., B.S., B.Sc.
HELEN C. I. GWYNNE-VAUGHAN, D.Sc.
JOHN H. HAYDON, M.A.
RICHARD TANNER HEWLETT, M.D.
ELLEN C. HIGGINS, B.A.
MICAIAH J. M. HILL, M.A.
REGINALD J. WICKHAM HURD, LL.B.
FANNY C. JOHNSON, M.A.
GEORGE DRUCE LANDER, D.Sc.
ERNEST GRAHAM G. LITTLE, M.D.
JOHN MCFADYEAN, LL.D., M.B., B.Sc.
PHILIP MAGNUS, B.A., B.Sc.
WALTER R. MATTHEWS, B.D., M.A.
RICHARD C. MAXWELL, LL.D., B.A.
HENRY FORSTER MORLEY, M.A., D.Sc.
T. PERCY NUNN, M.A., D.Sc.
WALTER RIPPMANN, M.A.
WALTER W. SETON, M.A.
WILLIAM J. SPRATLING, B.Sc.
MARIE C. C. STOPES, D.Sc.
FRANK L. TEED, D.Sc.
ETHEL N. THOMAS, B.Sc.
MARGARET J. TUKE, M.A.
ARTHUR R. UPJOHN, LL.B.
R. CECIL B. WALL, M.D.
AUGUSTUS D. WALLER, M.D., LL.D.
FLORENCE E. WILLEY, M.D., M.S., B.Sc.

November, 1912.

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 464.*)

XI.

THOMAS GUY.

"*Well, comes to that, they do say as 'ow 'e built two 'ospitals—Thomas's and St. Guy's—that's w'y they calls 'im Thomas Guy.*"

THE DEAN'S DILEMMA, 1908.

The estimate of Guy quoted above is less wide of the mark than it might seem. As we know, the very walls of St. Thomas's proclaimed him "a worthy governor and bountiful benefactor" of that hospital. As for his canonisation, we need not rely upon the unsupported evidence of the registrar quoted by "Wilks and Bettany" (page 84), but when so eminent a personage as Sir Robert Peel, writing to his sovereign (Letters of Queen Victoria, September 15th, 1845) refers to the Rev. Frederick Maurice as "Chaplain of *St. Guy's* Hospital," we begin to think there may be something in it after all.

Thomas Guy was the eldest son of an Anabaptist lighterman and coalmonger, and was born in Pritchard's Alley, Fair Street, Horselydown, in 1644 or 1645. At the death of her husband, in 1652, Mrs. Guy, with her young family, retired to her native town, Tamworth, on the borders of Warwick and Staffordshire. At the age of 15 young Guy returned to London to be bound apprentice for eight years to John Clarke, junior, bookseller and bookbinder in Mercer's Hall Porch. At the end of that time Guy was admitted a freeman of the Stationers' Company, and was received into the livery five years later. He started in business for himself at the corner shop at the junction of Cornhill with Lombard Street near Woolchurch Market and Pope's Head Alley. After Guy's death this "Lucky Corner" shop was occupied for a while by his quondam apprentice, Osborne; subsequently became Pidding's Lottery Office; and was finally demolished when King William Street was made in connection with New London Bridge.

Guy made his start in business by binding and selling Dutch printed bibles, a trade which enjoyed a great, if precarious, success from the fact that bible printing in England was regarded as a monopoly belonging to the King's Printers, whose productions were highly-priced and of inferior quality. In defence of their interests the King's Printers, by frequent seizures of this foreign stock, put an end to the traffic. For greater security Guy and another London printer, Peter Parker, entered into a contract with the University of Oxford for their privilege to print bibles; and this association was so successful that Guy gave his shop the sign of the Oxford Arms.

Meantime, however, Guy and Parker had fallen foul of the Stationers' Company, who sought to interfere with their contract with the University. It was alleged by the Company, with what truth it is impossible to say, that the two printers, between them, made over £10,000 profit by their connection with Oxford printing. Finally, after much intriguing, to which the Vice-Chancellor lent his aid, their contract came to an end in 1691.

All this while Guy had kept in touch with Tamworth. After some minor benefactions he presented an almshouse to the town in 1678, and enlarged it in 1692. In 1701 he built a new Town Hall. He had contested the Parliamentary election of 1690, but without success. He was elected, however, in 1695, and continued to represent Tamworth in subsequent Parliaments until 1708, when, much to his indignation, his constituents deserted their former allegiance. They repented, however, and again begged him to stand, but he angrily refused, and from that time dissociated himself from politics.

In 1694 he had been pricked for Sheriff in London, but, preferring to pay the £400 forfeit, had declined to serve.

Of his next financial transactions Maitland tells us: "*England* being engag'd in an expensive War against *France,* the poor Seamen on board the Royal Navy, for many Years, instead of Money receiv'd Tickets for their Pay; which those necessitous, but very useful Men, were obliged to dispose of at Thirty, Forty, and sometimes Fifty in the Hundred Discount." Guy invested largely in this traffic; a perfectly legitimate business in view of the danger that the Government might repudiate its liabilities. What happened eventually was that in 1716 it invited holders of the National Debt to exchange their stock for shares in the historic South Sea Company. Guy seized the opportunity to invest the whole of his Government seecurities, to the amount of £45,500, in the company. When, in 1720, the insane rush of speculators forced up the price of shares, Guy had begun to sell out his stock at 300 per cent., and by the time it had reached 600 he had sold the last of his property which, originally, he had acquired at no more than 50 or 60 per cent. Thus, within the space of three months, it is asserted, he got more money "than what the Erecting, Furnishing, and Endowing his Hospital amounted to."

If the appreciation which heads this article errs on the side of generosity, the vulgar conception of Guy's character certainly falls short of the truth; it has been summarised as that of "a bookseller of not over-scrupulous honesty, who, to appease his conscience, built a hospital." This view relies entirely upon a group of anecdotes of more than doubtful authority.

In our last essay we referred to the well-known picture representing Guy in consultation with Dr. Mead and an architect (commonly, and we think erroneously, identified as the Mr. Steer who designed the east wing of the front quadrangle) over the plans of the new hospital. The fourth figure is evidently intended for the heroine of the best-known anecdote of Guy. It is said that the bookseller had engaged to marry his housekeeper, and that she, presuming too far on a *fiancée's* privileges, ordered some paviors, who were at work upon the footway outside his shop, to carry the repairs to some distance further than his original instructions warranted, saying that she would be answerable to her master. Guy, on learning what had been done, broke off the match, and employed his money to better purpose by founding hospitals. His first foundation was the almshouse at Tamworth, which he built before the age of 35; so, if, as has been surmised, the incident must be dated by the Order of the Common Council in 1671, by which the tradesmen were compelled to repair the paving in front of their premises, the woman in the picture, uncommonly well preserved for 70 or so, must be still cherishing resentment at a time when her thoughts should be dwelling on other things than matrimony.

That Guy stinted himself that others might have the benefit of his money we need not trouble to dispute. It is said that his constant substitute for a tablecloth was either a proof sheet of some book or an old newspaper; that he was also as little nice in regard to his apparel; and that his ultimate failure as a candidate for Parliament was due to refusal to be at the cost of the lavish banquetting of the electors, customary at that time. Admitting this, we may still question if many have lived to justify better the motto of his hospital than the man who, Maitland says, "never had his Fellow in this Kingdom, nor perhaps in any other, for such great and extensive Acts of Benevolence and Charity."

Some of the allegations go farther, however. From his frugal habits Guy has been made to figure in certain "miserly" stories. They are to be regarded with suspicion as emanating from a man, John Dunton, who had spoken highly of Thomas Guy while he lived, but published his detractions four years after the philanthropist's death, when Dunton was an irritable man with madness already threatening him.

It seems not unreasonable to regard these stories of avarice by the same light as must be brought to bear on the old illustrations which represent Guy as a miser. They can generally be traced back to earlier originals quite unconnected with Guy. Before us as we write is a reproduction from an old engraving which represents a miser, in the costume of a time before that of Guy, with the not uncommon attributes of a heap of gold, an iron chest, and a pair of crutches. It was the custom of the time to adapt such illustrations by scraping incongruous detail from the surface of the copper, "beating up" the

metal from below to restore the level, and then re-engraving upon the bare surface fresh detail appropriate to the later story. So, in the present instance, there have been added a slate bearing a "Table of Interest" and a half-open scroll roughly inscribed "Plan of Hospital."

One of the famous "miser" stories tells of a visit paid to Guy after nightfall by a certain "Vulture" Hopkins seeking advice on the practice of economy. On learning his errand, Guy is said to have put out the farthing candle, declaring that such a matter could be discussed just as well without wasting the light!

This Hopkins was a real character. John Gay, whose savings had been lost in the bursting of the South Sea Bubble, refers to him in his "Panegyrical Epistle" on that topic. Pope twice names him in his "Epistles in imitation of Horace," and one of these references is sufficiently appropriate to be quoted here:—

"*When Hopkins dies, a thousand lights attend*
The wretch who, living, spared a candle's end."

If Guy was really of a similar character it seems strange that he should have escaped the pillory of that vindictive little poet, unless it was their common friendship with Dr. Mead that turned the scale in favour of Guy.

One other calumny remains to be recorded by its refutation. We quote a correspondent of the "Guyoscope" for September, 1897:—

"Dear Sir,—I read in last Saturday's GAZETTE (page 334) that "Mr. Guy was no fooner out of his apprenticeship." If this means anything it implies that Mr. Guy was a fooner *in* his apprenticeship. Surely a paper of the GAZETTE'S standing should be above defaming the character of the dead.—

Yours, etc."

Imitations of eighteenth century typography have their dangers!

So much for the detractors; we prefer the other story, already narrated in the first chapter of this series, as more consistent with the character of a man who is best appraised by his actions.

It was in 1704 that Thomas Guy first became associated with the fortunes of St. Thomas's Hospital. At that time it was still appealing for funds with which to continue the restoration begun several years previously, and to that purpose inviting wealthy citizens to become Governors. Guy received the green wand which by old custom signified his election to the Board of Governors in 1704, the same year in which the Treasurer's House was built. Dr. Mead had been appointed physician to the hospital in the previous year, and continued in that office until 1715. Guy may possibly have made his acquaintance earlier, for he had a house in Broad Street and frequented Batson's coffee-house, over against the Royal Exchange, in Cornhill. At any rate, Guy, from the time of his first association with the hospital in Southwark until the time of his death, found in Mead a trusted friend and adviser. In all probability Mead's association with both Christ's Hospital and Bethlem influenced Guy's benefactions to those institutions. To Christ's Hospital Guy bequeathed £400 per annum on condition that the Governors of his own hospital might annually nominate four children to be received and educated there. Only in quite recent times, we understand, has this condition been modified.

In 1707, says Maitland, "Mr. *Guy* built and furnish'd at his own Expence, Three Wards, on the North Side of the Outer Court of St. *Thomas's* Hospital, and gave to the same One hundred Pounds *per annum*, for Eleven Years immediately preceding the Foundation of his Hospital. And some time before his Death, he remov'd the Frontispiece of the said Hospital of St. *Thomas* which stood over the Gate-way in the Borough, and erected the same in the Place where it at present stands, fronting the Street; and having inlarg'd the Gate-way, rebuilt the Two large Houses on the Sides thereof, and erected the stately Iron Gate between them; all at the Expence of about Three thousand Pounds."

The "frontispiece" referred to was the old stone front (described in the first chapter of this series) with the stone effigy of King Edward and the smaller figures of patients. We have been unable to discover what became of the gateway surmounted by the Royal Arms of George I., or of the statues of patients from within the niches of the stone piers after their removal at the time when the front was altered for the approach to New London Bridge. Curiously, the old draughtsmen seem always to have chosen their view point from within the front court, so that we have not yet discovered an old print of St. Thomas's showing either the "frontispiece" when it occupied the western or street side of the front square, or of the gateway that replaced it in this situation.

When his operations in the South Sea Stock had proved so successful, Guy conceived the idea of further benefiting St. Thomas's by erecting a large building near by for the cure of sick and impotent persons; and for this purpose obtained of St. Thomas's a lease of several parcels of land "within the close of this hospital." By the end of 1721 the site had been cleared of buildings, and in the following spring the foundations were laid down.

It is incorrect to say, as often has been said, that the new hospital was actually started as an adjunct to St. Thomas's for the reception of the lame, halt, and blind, "*the mere despair of surgery*," and that the Governors, after Guy's death, from motives of personal or corporate ambition traversed the Founder's intentions to set up their institution as a rival to the older hospital.

It was Guy himself who caused the change. "Altering his Resolution by the Advice of Friends he

constituted the Government thereof independent of all others," and would have built his hospital elsewhere than in that low, close, and marshy situation, but that, "to his great regret, 'twas then too late, seeing the building was raised to the second storey."

In 1732 the Governors of his hospital decided to issue a second edition of his Will, together with the Act of Incorporation, adding a preface in their own justification. In this "Advertisement" they state that Guy "*himself apprehended and his suspicions were confirmed by those he consulted, that the word* Incurable *was of too large and indefinite a signification.*"

In the text of the Will, also, they emphasize Guy's own words, "That if my said Executors and Trustees shall not find cause, or shall on any account whatsoever, not think fit to keep all or great part of the beds or wards in the same intended hospital filled and supplied with sick persons deemed or called Incurable, as aforesaid; it shall and may be lawful for them, to cause any number of the said beds or wards to be filled and made use of in like manner, and with like patients as the beds in the hospital of Saint Thomas are ordinarily used."

It is a matter for real regret that the hospital possesses so few personal relics of Thomas Guy. We have already noticed a single contemporary portrait, a walking stick, and a gold ring bearing a posthumous likeness. Beyond these there remains little beside an autograph signature or two, and a very few of the books "issued by his press." It was a real loss to the hospital when Mr. "Treasurer" Harrison decided to bestow elsewhere his collection of bibles and other books printed by Guy. Might it not still be possible to bring together a permanent collection of objects of interest associated with a pious founder and a noble foundation?

(*To be continued.*)

The Navy League.

On November 6th Lieut. H. T. C. Knox (late R.N.), Chief Lecturer of the Navy League, gave an illustrated lecture on "The British Navy and Foreign Warships and Dockyards," in the Students' Club, Guy's Hospital. The chair was taken by Dr. Hale White.

The lecturer commenced his address by stating that the Navy League, on which he had had the honour to work since its foundation in January, 1895, was an entirely non-party organisation. That evening was a red letter one for him, because, although he had addressed hundreds of meetings on the Navy, not only in this country, but also in New Zealand and Canada, and recently at Buenos Aires and Valparaiso, that was the first gathering of medical students he had been privileged to address, and he hoped it would not be the last. He was out for great things that night, and he hoped before he had finished to have the sympathy and support of all present for the Navy League.

Mr. Knox said he would not say a word against any foreign nation. We were on good terms with them all, and should probably remain so as long as our fleet was supreme, but he could not fail to point out to his audience that a great and powerful fleet was rapidly being created on the other side of the North Sea. To us sea power was as vital as the air we breathed, and in order to prove that statement he had only to mention that this country was importing food at the rate of £500 worth *per minute,* and that all our raw materials came to us across the ocean. In the cotton industry alone we had £400,000,000 invested, and there were some 7,000,000 people in these islands dependent for their daily bread upon wages earned in the cotton industry.

The Navy League was at war with all little Navy M.P.'s who were totally ignorant of our trade routes, had forgotten, if they ever knew, that England was an island, and that everything that reached her had to come across salt water, and who, by voting to reduce the fleet, deliberately voted to make war more certain, and when it came, to make it more difficult for the mass of the population to obtain their food.

Slides were shown of Lords Roberts, Kitchener, and Nelson, which were received with much applause, types of British and Foreign Warships, life on board a man-of-war, the building of a Dreadnought, rolling armour plates and wire-winding guns at Vickers's works at Sheffield, Navy League Training Brigs at Windsor and Norwich, to both of which His Majesty graciously contributes, and Reading, also the Navy League Training Home at Liscard, Cheshire, and the "Egeria," the training ship belonging to the Vancouver Branch of the Navy League. By means of these training establishments the League had for years been trying to replace the 35,000 foreign seamen in the mercantile marine with Britons.

Mr. Knox then showed his own pictures of Enden, Borkum, Nordeney, Heligoland, Wilhelmshafen, Bremerhaven, etc., and advised all his hearers to purchase and read "The Riddle of the Sands" and "The Navy League Annual." The last slides shown were those of H.R.H. The Prince of Wales, Her Majesty the Queen, and His Majesty The King.

The lecturer concluded his address with Ruskin's "Stones of Venice." "Since first the dominion of men was asserted over the ocean, three Thrones of mark beyond all others have been erected upon its sands, the Thrones of Tyre, of Venice, and of England. Of the first of these great Powers nothing remains; of the second, the ruin; the third, which inherits their greatness, if it neglect their example, may be led through prouder eminence to less pitied destruction."

A vote of thanks to the lecturer was carried by acclamation. Dr. Hale White was thanked for presiding by Dr. Maurice Craig, Hon. Secretary of the Medical Branch of the Navy League.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

The Prognosis and Treatment of Diseases of the Heart. By R. O. Moon, M.A., M.D. Oxon, F.R.C.P. (Longmans, Green & Co.). 2s. 6d. net.

Dr. Moon has produced a very excellent little book, which is at once readable and instructive, and is full without being in the slightest degree tedious.

At the termination of his Hospital training the Student, as a rule, finds himself in possession of a moderate store of information in regard to the varieties of bruits and the essentials of diagnosis of cardiac conditions, but his mind is, to say the least, vague in regard to the treatment of such conditions, and in regard to prognosis is frequently hesitating or ulteriorly biassed.

This volume will go far towards making good his deficiencies. It is obviously the result of a wide experience and keen observation, and is rendered palatable in a manner seldom found in medical publications of to-day, by being imbued with a refined literary flavour.

Insomnia: Its Causes and Treatment. By Sir James Sawyer. 2s. 6d. net.

The loss of sleep is so great and so common a calamity that an attempt to classify the causes and treatment of insomnia should command the careful consideration of every member of the profession.

The discourse, to which it is our intention to draw notice, starts with a brief survey of the physiology of sleep, from which it is deduced that two distinct vital changes occur in sleep: 1. A diminished supply of blood to the brain and especially to the cerebral cortex; and 2. Some intrinsic change in the cerebral cells, of the nature of a functional depression due to an accumulation in the affected organ of some of the products of normal tissue waste.

Passing directly to the subject of insomnia the author divides cases into two groups:—

1. Symptomatic insomnia.
2. Intrinsic insomnia.

Upon the first group it is unnecessary to comment, for it merely includes those cases of insomnia which are concomitant with a great variety of morbid states, and are dealt with in ordinary text-books on medicine.

Intrinsic insomnias are said to fall naturally as to their causes into three divisions, the psychic, the toxic, and the senile.

Such a classification may be excellent for clinical uses, but we venture to suggest that to differentiate between worry, toxins, and senile degeneration of the smaller arteries as separate causes is to make a distinction where none really exists. In the parlance of modern tendencies, would it not, perhaps, be truer to say that there is but one cause of intrinsic insomnia, viz., auto-intoxication.

It might be urged that over-work or (shall we say) hard work would not be likely to make a man worried, if his physical resistance was not already undermined by prolonged poisoning from the retained waste products. The same argument might be applied to the causes of senile arterial degeneration.

A quotation from the author, bearing upon causes and effects, requires no apology for its insertion. "In medical reasoning there is little which is so difficult as tracing effects up to their causes, and there is little so easy as the invention of causes for effects. Let this caution make you wary."

Apart, however, from the physical causes of insomnia there are very definite psychical states which predispose to sleeplessness.

One such mental condition is noted in this monograph, viz., the fear of insomnia, which, having become an obsession, passes into an unreasoning terror of the results of sleeplessness, and by a curious paradox of the will the unhappy man is overtaken by the nervous wakefulness that he dreads. "A determination to keep awake is a sure provocative of sleep; but a fear of keeping awake is a sure disposant to insomnia."

The toxic variety of intrinsic insomnia is thought to act primarily by increasing the cerebral vascularity. The poison itself may come from without, as in tobacco, alcohol, tea, etc., or from within by an absorption from the gastro-intestinal tract.

Senile insomnia is again said to be the result of high tension in the cerebral arteries. In this connection it may be noted that early rising is not considered by Sir James Sawyer to be a virtuous desire to start the day's activities as some people would have us believe, but rather a sign of senile degeneration, which renders sleep impossible. He says "you may, perhaps, have observed amongst your friends that an exaggerated appreciation of the merits and value of early rising often increases as age advances." Nothing very new is offered upon the treatment of insomnia although the suggestions are sound and very clearly expressed.

The combination of hypnotics is advised if such drugs are used at all, although it is rightly pointed out that they should only be exhibited in exceptional cases.

Hospital Sisters and Their Duties. By Eva C. E. Lückes, Matron of the London Hospital. Published by The Scientific Press, Ltd. Price 2s. 6d.

This interesting and valuable book, from the pen of the Matron of the London Hospital, has reached a fourth edition, and in its present form will undoubtedly have a world-wide circulation among members of the nursing profession. The book is an unqualified success. It fills what was formerly an unfortunate gap on the shelves of a nurse's library, and speaks especially to the trained nurse who, for the first time, is undertaking a responsible post which will display her limitations or prove, to the utmost, her strength of character. Everywhere, reading between the lines, we find Miss Lückes urging the all-important teaching that something more than mere capa-

city for work, something more than keen professional ability, is required for real success in the management of a hospital ward. As we look back, after the lapse of some few years, thinking of those many Sisters with whom we have worked in hospital, it is not difficult to pick out some who stood pre-eminent, owing to the presence of three qualities which they exhibited to an exceptional degree. First of all they were possessed of a thoroughness, and attention to detail, which is bred of enthusiasm alone; secondly, theirs was an infinite tenderness, which was neither lost nor hidden after tiring years of strenuous nursing; thirdly, they always showed an exquisite tact invariably speaking the right word at the right time with diplomatic greatness.

After reading this book, and appreciating more fully the hourly difficulties which fill up the busy day of a Hospital Sister, such qualities as the above appeal to us in a still brighter light and with greater force.

The chapters dealing with the training of probationers, and with the relationship of Sisters to their patients, are specially valuable. There is much advice on matters of administrative detail which will be appreciated by all those, both on the medical and on the nursing staff, who understand the advantages of working in harmony with a minimum amount of friction.

We think there might have been a more extended reference to the subject of the ward Sister's attitude towards the friends of patients. How many of those relatives who come to visit their sick folk, are terrified by even stepping just inside the door of a hospital ward, and leave full of gratitude to the lady in the blue dress who, at the end of a long day, was always ready to lend a kindly ear to an account of their troubles.

The last chapter of the book particularly appeals to us; it could only have been written by a woman of large experience. It deals with the preliminary training home, and is full of great ideals and sound common sense, containing a most valuable letter of advice from Miss Lückes to the Sister-in-Charge when the home was inaugurated at the London Hospital.

It only remains for us to congratulate the authoress upon her extremely useful contribution to nursing literature.

Mind and its Disorders. By W. H. B. Stoddart, M.D Second Edition. Demy 8vo. (H. K. Lewis.) 12s. 6d. net

As a rule the student finds but little time - so many are the requirements of modern medical education—for the study of mental disorders. This is an unavoidable anp lamentable fact, in view of the increasing importance of this branch, an importance which recent investigations only tend to make more manifest. Unavoidable it must be considered in so far as psychology is just as essential a prelude to the study of mental morbidity, as physiology is to the study of physical morbidity. Dr. Stoddart's book is a praiseworthy attempt to make good the deficiency. It is clear, well ordered, amply illustrated, and, above all, interesting, but—for the examinee—its magnitude is still something of a deterrent. The second edition is especially characterised by its "up-to-dateness" in regard to scientific data.

Waring's "Manual of Operative Surgery." Fourth edition. 12s. 6d. net. (Hodder & Stoughton.)

The fourth edition of this valuable manual surpasses its predecessors. It has been thoroughly revised and brought up to date, and there are many new and excellent illustrations. The one objection, from the point of view of present and past generations, is the adoption of the new anatomical nomenclature, but it is an objection which, in a progressive age, must be allowed to drop. Moreover, an excellent glossary is provided.

Pupils' Physical Society.

A Pathological Meeting of the above Society was held in the Wills Library on November 9th. Mr. R. A. Fawcus was in the chair, and twenty-five members were present.

The following specimens were shown:—1. Lithopædion (Mr. O. G. Morgan). 2. Gastric Ulcer (Mr. T. B. Heaton). 3. Hodgkin Spleen (Mr. Pedley). 4. Abscess in Heart Muscle (Mr. Peregrine). 5. Eclamptic Kidney (Mr. E. S. Taylor). 6. Prolapsed Fæcal Fistula (Mr. Starling). 7. Tabetic Bladder (Mr. O. G. Morgan). 8. Sections of Epithelial and Mammary Growths (Mr. R. A. Fawcus).

The following members took part in the subsequent discussion: The President, Dr. Maxted, Messrs. Edmond, Taylor, Miller, Heaton, Morgan, Pedley, and the Hon. Secs.

Hockey.

GUY'S HOSPITAL v. ST. THOMAS'S HOSPITAL.

A very fast and enjoyable game between these two teams ended in a draw of two goals each. Both teams were unfortunately short of their regular players, Guy's playing seven reserves. Thomas's led at half-time by 1—0, and soon after starting again added another goal. After this Guy's did all the pressing and scored two good goals through Parry and Jessop. At the end two good centres from the left should have been converted by the Guy's insides, but owing to the pace of the game they were not up in time. Team:—

GUY'S.—G. D. Gripper and H. Green (backs); C. R. Smith, G. Waghorne, H. L. Jackson and H. N. Purdom (half-backs); O. Savage, H. Jessop, J. H. Parry, R. Vincent-Brown and L. Martin.

Births.

GLANVILLE.—On November 11th, at Emsworth, Hants, the wife of L. S. Howard Glanville, M.D., B.S., of a daughter.

HENDERSON.—On November 13th, at the Red House, Amersham, Bucks, the wife of Hal. J. Henderson, M.B., B.S. Lond., of a son.

HOLBORN.—On November 14th, at Cumberland Lodge, 1, Streatham Hill, S.W., the wife of F. M. Holborn, L.D.S., of a son.

MARTIN.—On November 8th, at 158, Eastern Road, Brighton, the wife of Bannar H. Martin, L.D.S., of Malta, of a daughter.

Marriage.

GARDINER—HARE.—On Tuesday, November 19th, at St. George's, Hanover Square, by the Rev. Prebendary Perry, Harold Gardiner, M.B., B.S., only son of F. A. Gardiner, Esq., F.L.S., of "Inversnaid," West Heath Avenue, N.W., to Constance Mabel, only daughter of Henry T. Hare, Esq., F.R.I.B.A., and Mrs. Hare, of 31, Cumberland Terrace, Regent's Park.

Ed.—J. A. R.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 638.] DECEMBER 7, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	489–492
With the Montenegrins	492–496
Change of Address	496
Appointments	496
Pass List	496
The Distribution of Nerves in the Dental Pulp and in the Dentine. Clinical Lecture by Howard Mummery, L.D.S.	497–499
London Bridge and the Borough in the Eighteenth Century (*continued*)	499–501
Can Aspirin cause Pneumonia to Abort? ...	502–503
Correspondence	503–505
Women's Suffrage	505
Papers by Guy's Men	505
Reviews	505
Sport	505–508

Passim.

IN this number will be found further correspondence on the question of general practitioners and their experience, and fresh support for the suggestion that arrangements should be made for the giving of lectures at Guy's by men who have had the benefit of many years of such experience. We make no apology for again bringing this suggestion to the notice of the Medical School authorities, for we consider it to be one of more than ordinary importance. His profound ignorance of the conditions to be met with in practice is, for the newly-qualified man, the greatest obstacle to progress; where it is possible to remove even a small part of that obstacle, surely, in fairness to the man and to his future patients, no assistance should be refused. In our opinion a suitable system of lectures affords the only practicable means of rendering such assistance while men are still studying at the hospital. Any letters on the subject, and more particularly letters from those whose duty it should be to give the matter their consideration, will be welcomed.

OUR attention has recently been directed to the existence of a definite need for reform in the treatment of a certain, small class of patients admitted to the Hospital. We refer to the cases of attempted suicide which, from time to time, are taken into Clinical or the Surgical Wards. It was pointed out to us, and we are very grateful for the evidence, that from the moment of their admission these cases, although treated as excellently as may be, either medically or surgically, are never considered (as they should be considered) from the point of view of the mental disorder with which they are afflicted.

It is strange and regrettable that such short-sightedness in treatment should have persisted for so long, and we cannot but wonder, especially in view of the lamentable after-histories of a considerable proportion of these cases, that more consideration has not been devoted to the question.

We fully realise that every effort is made by the Hospital Chaplains, and later by charitable organisations and humane individuals, to help and encourage these patients in their future careers, and further, that occasionally their efforts are rewarded; but it must be admitted that, with all their excellent intentions, these authorities are not in any sense qualified to deal with pathological mental conditions.

With some of the causes predisposing to certain cases of mental disorder they may be well qualified to deal, and especially with such as are associated with domestic, pecuniary, or, in a word, with environmental factors; but the conditions themselves they are so far unqualified to treat, that their attempts may be, and sometimes are, actually harmful.

IT is usual, when any other case in the wards exhibits symptoms of mental disorder, to call in

Dr. Craig, on whom the diagnosis and treatment naturally devolve. Why, we would ask, is Dr. Craig never called in to examine those patients whose psychopathy has culminated in attempted suicide? It may be argued that the majority of these cases have reached such a stage as to be no longer amenable even to the treatment of an expert in psychiatry, but surely it is incumbent upon us to make the attempt at cure, or, at any rate, to further investigations and research. From the point of view of students and others interested in a particular case such a procedure would be of undoubted value, since it would give them the opportunity of learning, in a practical way, facts concerning a branch of medicine which is usually a closed book to them. There is, too, another very important aspect of the question. The legal conception and the legal treatment of suicide as of innumerable other disorders which have, in ignorance, been classified as crimes, of necessity militate against a good prognosis. The continual presence of a policeman, although of much practical value and conducive to peace of mind in the other inmates of the ward, is a very doubtful advantage from the patient's point of view; while the worry, and in some cases the persecution, which he subsequently undergoes at the hands of magisterial authorities, constitute, in a progressive age, a veritable scandal.

In our correspondence column there appears a somewhat quaint letter, hailing from "the States," which embodies an appeal for systematic scientific examinations of other types of so-called criminal. In a few years' time it will become generally recognised that a very large proportion of anti-social actions, now characterised as crimes, are in reality merely the expression of morbid mental states, and treatment will in consequence be widely substituted for punitive methods. Our much vaunted Justice will at last be revealed in its true light, and we may, perhaps, begin to hope for better things. In reverting to our original theme, we would lay particular emphasis upon the fact that at present in suicidal cases we are only treating symptoms. To sew up a cut throat and to ignore or aggravate the mental condition of the patient is just as unscientific and reprehensible as it would be to treat the sleeplessness in a case of compound fracture, while ignoring the existence of the surgical lesion. In future, if we are to alter efficiently our attitude towards suicidal cases, we must adopt one of two courses. Either we must refuse to admit them on the score that they are mental cases and unsuitable for treatment in a general hospital, or we must admit them and endeavour to treat the complaint from which they are suffering.

On Friday, December 13th, an important discussion will be held under the auspices of the Physical Society. The subject for consideration is "The Treatment of Consumption," and if we are to judge by the list of the names of those who have offered to take part in the debate, the meeting should, indeed, be a noteworthy one. Dr. Marcus Paterson, the leading authority on rational sanatorium treatment, and the champion of auto-immunisation theories, whom some of us have already had cause to thank for the instruction and pleasure provided in the course of visits to Frimley, will open the discussion. Dr. Shaw, Dr. Fremantle, Dr. Eyre, and Sir James Goodhart have all promised to speak, so that it seems probable that the subject will be treated authoritatively in its every aspect. That a disease of such ubiquity and potency should be attacked from as many vantage-points as possible is, we need hardly say, essential. That there is, however, a tendency on the part of enthusiasts, in one direction or another, to claim priority in efficiency for their own particular method, to the exclusion of others, we must also admit. It is for this reason that we welcome any occasion which may afford an opportunity of disseminating knowledge concerning Pulmonary Tuberculosis in its multiple aspects. Only by well-considered application of such knowledge, and by a combination of medico-political, preventive, bacteriological, and clinical methods, can we hope to combat the ravages of the disease which has received the not inappropriate name of the Great White Scourge.

On December 9th and 16th the Medical Society of London will meet to discuss the question of Intestinal Stasis. It is satisfactory to note that the profession is now beginning to show a wider interest in this highly important condition, and it will be interesting to hear the views of those present at the meetings. It is high time that Mr. Lane's work, which has made such an impression in America, should receive, nearer home, the full attention it deserves.

The following paragraph, relating to the New York Clinical Congress, from a recent edition of *The Standard*, is fresh proof of the esteem in which our Senior Surgeon is held:—

AN ENGLISH TRIUMPH.

"One of the largest of the clinics was that conducted by the noted English surgeon Dr. W. Arbuthnot Lane, F.R.C.S., of Guy's Hospital, London. It was held at the Polyclinic Hospital, Fiftieth-street and Ninth-avenue, and Dr. Lane performed operations to demonstrate the use of 'Lane's plate,' a device of his own for the uniting of bad fractures of the arm, leg, or thigh.

"The plate consists of a narrow bar of vanadium steel from 3½in. to 4in. long. In cases where the fractured ends have slipped past each other Lane's plate is fastened to these ends to keep them in apposition during the knitting process.

"While Dr. Lane was operating and lecturing on this process at the Polyclinic, Dr. W. H. Bishop, of New York, was exhibiting at the Flower Hospital a cure effected by the method. This was the case of ten-year-old Cleveland Van Wert, of Mount Vernon, who fractured his thigh last winter. He has recovered the complete use of his leg."

A very welcome addition to the Wills' Library has recently been made, in the shape of a carpet, which extends throughout the length of the hitherto reverberant aisle. Many are the expressions of approval at the change, and we believe that the attendance in the Library for purposes of study has already increased. No more will the searcher after knowledge be disturbed by the tramp of heavy boots on wooden blocks, and, in spite of the fact that a few evil spirits still regard the place as one set aside for the conduct of conversations and disputes, examination chances should in future be considerably enhanced.

We would remind our readers that subscriptions are being collected for the Out-Patients' Tea, or, as it has been re-christened, "The Landon Christmas Tea." T. H. W. Landon was the founder of this the best of Christmas institutions, and it is only fitting that the memory of one possessed of so great a heart and such splendid zeal in the face of discouragement, should be thus kept permanently green. "The Landon Christmas Tea" is certainly one of the greatest events of a great week—greatest from the point of view of its popularity, of the din which it creates, and of the spectacle which it provides for onlookers.

Half-crowns will be gladly received by any of the following: The Out-Patient Officers, The Dental House-Surgeons, The Student Demonstrators, and Sister Out-Patients.

On the last page of this issue will be found announcements relating to the various pictures and publications now obtainable in the Wills' Library, any of which should prove admirably suitable for Christmas Gifts.

In addition to the older well-known reproductions, the prints of Mr. Hanslip Fletcher's new drawings of the Hospital are on sale, and should find purchasers in plenty. They have already been reviewed in our columns, and, we understand, are receiving, on all sides, the praise and appreciation which they so richly deserve. The eight original drawings, by Mr. Hanslip Fletcher, are now on view in the Gazette Office, and may be obtained at a cost of £10 10s. each.

Messrs. Ash & Co.'s Christmas Cards this year take the form of Christmas Greeting Post Cards, representing respectively, views of the Front Gates, Nurses' Home, Clinical, Medical Buildings, Thomas Guy Conferring over Plans of the Hospital, and Guy's Arms. Through the generosity of Messrs. Ash & Co., Ltd., the proceeds from the sale of these cards will go towards the Hospital funds. This should be an added stimulus to their purchase. They may be obtained from the librarian, or from Miss Smith in the Matron's office.

THOSE who wish to secure seats for this year's Christmas Play, to be produced and performed by the Residents on the nights of December 26th, 27th and 28th, in the Physiological Theatre, should apply at once for tickets to Mr. G. Marshall, President of the Residents. We learn that the play is to be a topical one. It is the work of a local literary genius, and is entitled "Progress."

MR. W. H. Ogilvie, our correspondent in Montenegro, has forwarded his first batch of news, which will be found below. The St. Bartholomew's Hospital Journal for December, contains a contribution from Mr. Ogilvie's colleague; this is less technical, and written in a more journalistic vein, and describes a variety of incidents and accidents of the campaign, including an account of the destruction of the hospital roof during a gale, descriptions of interviews with Montenegrin Royalty, and a strange category of the cases coming up for treatment. Our correspondent with the Greek forces remains silent.

THE appeal made by a correspondent in our last issue, for better attention to asepsis in the Out-Patient Departments, has received a prompt response. It is now possible to take those ordinary precautions, which have long been practised in the Front Surgery, and are rendered possible by the provision of more than one spatula, and more than one basin. It is to be hoped that steps will be taken shortly in regard to the other proposals made by our correspondent (in repetition of those made in the GAZETTE nearly a year ago), to the effect that fuller advice should be given to patients suffering from venereal disorders.

CONGRATULATIONS to Messrs. Attwater, O'Brien, Bromley, J. G. Saner, and Trethowan, all of whom have been successful in the final examination for the Fellowship of the Royal College of Surgeons, and to Mr. Liebson, who has passed the Primary Fellowship examination.

J. A. R.

With the Montenegrins.

BY OUR SPECIAL CORRESPONDENT.

BEING here in Cettinge is quite a new sensation to me. It is more than being in a foreign country: it is like a visit to a new world distinct from the one I left so recently; a world like that Jack found at the top of the Beanstalk; or that country up in the mountains inhabited by the People of the Mist. I have no idea how high Cettinge lies because I have not got a Baedeker with me; probably in metres it is something quite insignificant, but it is this subjective feeling of height and of total separation from the world that lies beneath that gives this place its peculiarity. The clear, rare air, which is intensely and penetratingly cold even in a full mid-day sun (to-day the first snowfall has come; half an hour ago the war correspondents left the fire and photographed each other "writing dispatches in a snowstorm"—the picture you will see in the *Daily Mirror* about the time that you get this letter); the dazzling brightness of the light, perhaps above all the memory of that wonderful day-long climb up the sides of sheer walls of naked limestone by which I came up from Cattaro into Montenegro, and of walks to a point just south of the town, where you stand once more on the edge of the plateau and look upon the Lake of Scutari far below, and on a clear, still day can see the exploding shells and hear the sound of the guns—all these probably account for this feeling of separation from the rest of the world. The delightfully simple state of society, too, where the king lives in an ordinary house and the princes in cottages, where archdukes hobble about in rags, where peasants wear national costume as a matter of course and not merely as fancy dress, where the same building does duty as post office, police station, government offices, and houses of parliament, separates it strangely from the rest of the civilised world. There is one even greater distinction—it has no Cinema Palace! I took a slow boat down the Adriatic which called at a great many small towns whose quaint buildings and quainter inhabitants seemed to promise that here, at any rate, civilisation had stayed its hand; but, after all, even at Lissa, on one of the outlying islands, the posters heralded the presence in the town of an Elektrobioskop. Long may Cettinge be spared!

When I first went to the hospital, the day after my arrival here, a batch of wounded was arriving from Rjeka, some in an old motor bus, some on stretchers laid across the seats of open cabs, most of them in their uniforms and having their rifles with them. I cannot vouch for the state of their equipment at the beginning of the war, but for the last few weeks the men have been bivouacking practically without shelter, often in the worst of weather, and their clothes are in an awful state. Round the gates of the hospital

was a mixed crowd, soldiers, some old, some convalescent, peasant women who had been pressed into service and were wearing the red cross on their arm, men, women, and children from the village, all come to see the arrivals from the front, perhaps to recognise relations or to hear news of them.

Inside, two rooms, one set apart for the reception of the wounded; in the first the stretchers are laid side by side on the floor as they arrive and are unloaded; a strange sight it is to see them lying there, old and young side by side, ghastly wounds covered over by bandages, the sunken eyes and haggard features of general peritonitis, the moan of pain, and the chatter of delirium; again, others cheerful and full of chaff, only longing to get well and take their place once more in the firing line. In the next room the cases are dressed one by one; there is an operating table in the middle with dressings and antiseptics handy; the dressings with which the wounds are covered are removed, and they are examined and treated according to the condition found. The lighter cases are sent off to the barracks where there are several hundred beds; the more serious ones are kept at the hospital. Anything that is immediately necessary, as the removal of splinters or cutting away of necrotic tissue, is done on the spot.

One after another they are brought in. Round the table crowd a lot of soldiers who have come in to see what is going on, eagerly pressing round with exclamations of sympathy, joking with refractory patients, encouraging those suffering, while others outside flatten their noses against the window with that attraction towards the gruesome which seems so universal a component of human nature. Here is an old fellow with a gunshot wound of the arm, carrying a sword which he captured from a Turk; for a time everything else loses interest while the sword is passed from hand to hand, the engraving and star and crescent which ornament the upper part of the blade suggesting that it belonged to some high officer. I am afraid it was really a most ordinary sword. And so the work goes on. If you think of the Front Surgery with the inhabitants of the Borough become for the moment picturesque, and all crowding into the room and commenting in high-pitched voices on what is going on, you will have a fair idea of the scene.

The hospital at Cettinge has been built in the last year or two, and is, on the whole, very well equipped. These wards are not built with that eye towards ease in cleansing which is so evident in our hospitals. This is probably a question of expense. The beds are of a very simple description, and are about 2 feet apart; there are about 20 in each ward, and about 70 in the hospital altogether. The operating theatre is beautifully built, and its general outfitting is all that could be wished. The arrangements for moving patients leave much to be desired, on the other hand, for there is no lift, and they are usually lifted by the assistant, unaided, on to a stretcher, and transferred in the same way to the operating table, an excruciatingly painful process in some cases.

There are three Russian sisters who superintend the nursing, and whose skill and patience is beyond praise. For the rest, however, the work is done by women of the town who have given their services during the war, and whose enthusiasm far outstrips their utility.

Of course, the great majority of cases treated here are gunshot wounds, the remainder being practically all shell wounds. Wounds by side arms are of very rare occurrence in modern warfare, and there are none under treatment in the hospital at present. The Turks, in this part at any rate, are armed with the Mauser rifle, which fires a bullet of ·301 in diameter, with an initial muzzle velocity of 2,066 feet per second. The modern bullet of this type, consisting of a hard metal envelope and a lead core, is practically sterile. It retains its high velocity over considerable ranges, and under normal circumstances undergoes no deformation in its passage through the tissues. The wound it causes will, therefore, in most cases heal readily if it can be kept free from bacterial infection. This is especially the case with wounds through the soft parts. In these the exit and entrance wounds in the skin are small round perforations, often appearing of lesser diameter than the bullet causing them. The track is generally of much the same diameter, and the damage to the surrounding tissues is inconsiderable. The effect on blood vessels is variable: arteries often escape destruction in the most miraculous manner, and it is suggested that the conical bullet is able to push a resisting vessel aside without perforating it. The coats of the vessel, in a case like this, are, however, often damaged, giving rise at a later date to secondary hæmorrhage, aneurysmal dilatations of the coat of the artery, or arterio-venous communications. These wounds through the soft parts are the most searching of silent examiners in the subject of anatomy; here is an entrance wound, here an exit, perhaps many feet away; what structures lie in the intermediate line, and what symptoms would we look for if they were damaged? A few cases may be interesting.

In one, a man of about 30—40, the entrance wound is 2 to 3 inches outside and slightly below the right nipple; the exit wound about in the tenth space in the scapular line on the same side; the sputum is bile stained, and at the exit wound there is some escape of fæcal matter. Therefore, lung, liver, and bowel have been injured, the latter probably by splinters. The wound behind was explored and a cavity found, but no splinters; an inch of the tenth rib was excised.

In another case the bullet has passed in a horizontal direction through both thighs, the entrance and exit wounds being just in front of and about the same level as the trochanters. The femora appear un-

touched. The scrotum is perforated and also the left testicle, the right having probably escaped owing to its higher position. The wounds are perfectly clean and the case doing splendidly.

In the case of a young man of about 20 whom I saw dressed, but who was then removed to the barracks, the entrance wound was in the middle of the upper arm at about the level of the floor of the axilla. There was considerable pain, and it was not possible to see if the bullet had emerged in the axilla. There were no signs of fracture, so that the humerus had either escaped or undergone clean perforation. The wound of exit was on the left side, about a hand's breadth below the inferior angle of the scapula. It is hard to think where the track crossed the mid line, for the man, though in pain, was not at all ill. I suggest as an explanation that it passed through the body of one of the thoracic vertebræ, drilling a clean hole; it could hardly have traversed the mediastinum with impunity.

There is another man who has an entrance wound 1 inch below and 1½ inches outside the left nipple; the exit wound is right through the right nipple. The shot must have, at any rate, perforated the pericardium, for the man is by no means flat-chested; nevertheless, the wounds are clean, and he is none the worse.

In a boy of about 19 the entrance wound is exactly on the point of the chin, the exit wound at the back of the neck about a hand's breadth from the middle line, and passing out through the trapezius muscle about 1 inch below its free margin. The jaw is badly smashed, and there is considerable swelling in the neck. The line of the bullet must have passed extremely near the carotid artery, but this is uninjured.

In an older man the bullet has passed through the root of the neck on the left side just above the inner one-third of the clavicle. The vessels have escaped, but the track of the bullet has passed through the brachial plexus, causing partial paralysis of the arm.

Another man had a wound in Scarpa's triangle. This healed without any complications, but a tense pulsating arterio-venous aneurysm has developed about the size of a golf ball. Though the original wound did not appear severe and healed without complications, the common femoral artery will almost certainly have to be tied, with the result that the man will in all probability lose his leg.

The effect of these bullets on bones is variable, and depends on the velocity of the bullet at the time, and the resistance offered by the structure. Two typical effects are described: firstly, a clean drilling or grooving of the bone according as the bullet strikes the centre or the periphery—this is seen typically in cancellous and flat bones; and a so-called explosive effect, the bone at the point of impact being shattered into a large number of pieces varying in size from splinters to mere bone dust which are driven up and down the limb and forced out at the opposite side, causing a large and ragged exit wound with much laceration of soft parts and tearing of the skin; this effect is seen specially in the shafts of the long bones, particularly the tibia and the femur, and is a most severe injury, as the laceration renders infection extremely probable, while there is generally a loss of substance involving 1 to 3 inches of the bone which prevents any satisfactory repair resulting. Of course, various intermediate conditions are often found.

The first day I was here a man of about 40 came in with a wound about five days old on the apex of his left shoulder; there was no exit wound. Movements appeared perfect, but caused considerable pain; there was no crepitus or other evidence of fracture. Two days later he was anæsthetised, and an incision made upwards and downwards through the skin wound and the humerus exposed. This was found to have been struck by the bullet on its outer aspect at the level of the surgical neck, and was traversed by a deep groove channelling the head of the bone in an inward and slightly backward direction; the groove was ragged, but there were no large fragments. The scapula appeared undamaged. The joint was opened from above, but the bullet was not found.

There were, of course, many examples of the explosive type of fracture. In one case that I saw the bullet entered the left leg on the outside, fracturing the fibula and the tibia to an enormous extent, so that there was a large wound on the inner aspect of the leg in which the broken ends of the bone could be seen; the whole had become horribly septic. The bullet then entered the right foot just below the internal malleolus, and was removed a few days later from under the skin over the base of the first metatarsal. It was very much mushroomed, but the nickel envelope had not burst.

The clean perforations, of course, give very little in the way of symptoms, and are either seen at operations or post-mortems, or are inferred from the direction of the track. Thus, a man came up with an entrance wound in the upper and outer part of the right thigh and exit wound in the buttock, the line passing through the neck of the femur. The wounds were clean and he could walk, though with considerable pain.

Of skull wounds there are a great many in the hospital, and of all grades of severity. The majority, as one sees them, are cases with open wounds from which loose fragments have been removed, which are in a more or less precarious condition, and in which efforts are being made by packing and painting with iodine to secure asepsis. The bright side is shown by one old fellow who is a national hero. In the first action at Detchich he was shot through the head and fell to the ground, but got up again and ran on, falling from time to time, but always getting up again, till finally he was the first to enter the fort. He is now

as fit as anything—a small wound in the left frontal region, which is dressed daily with ointment, is all that remains.

Of wounds in the lung there are plenty, most of them running a favourable course.

Of penetrating wounds of the abdomen, about 30 per cent. give no symptom of injury to the viscera at all. This result is greatly favoured if the man was fighting on an empty stomach at the time of being shot, so that the small intestines were empty, and if he has been left lying long enough for the local inflammatory reaction to seal off the lesion. In another large class infection of the peritoneum occurs, but is limited by adhesions, so that a localised abscess is formed which can be treated by operation at a later date: several of these with fæcal fistulæ, but otherwise doing well, are under treatment here. But, of course, a large number get general peritonitis and die.

Shell wounds are, of course, very variable. They are usually of greater extent than gunshot wounds, but not so deep, and they are almost certain to get septic owing to the extensive laceration and the introduction of fragments of clothing and other matter into the wound. In a separate ward of the hospital are two women, or rather girls, whom you must have heard about, for they were wounded in one of the early actions of the war while carrying food to the men. One of them, who cannot be more than seventeen years of age, has, in addition to a gunshot wound through the soft part of the thigh, a tremendous gash from a piece of shell stretching from side to side of her throat, just under the gland, and extending deep into the root of the tongue; it has become septic; the poor girl is looking very ill with it.

There is little to be said about the dressing of the cases. One of the Russian sisters accompanies the surgeon, carrying over her arm large bags containing sterile gauze, wool, and bandages; she also has a metal box containing a number of sterile forceps which are used in turn. The skin is cleansed with benzine or with a weak solution of iodine in benzine. Tincture of iodine is used extensively for touching sloughing places, and painting on the skin. Hydrogen peroxide is used for irrigation when available, but the supply is liable to interruption, when mercuric chloride is used instead. The only dressing used is sterile gauze. The surgeon wears rubber gloves, which he washes in between the cases in iodized benzol.

The procedure at operations is very little different from that usual in our country. To an outsider the whole management of the cases appears very much open to criticism. Any kind of system appears to be foreign to Montenegro, and the consequences in surgical treatment are that the results fall very far short of the best possible under the circumstances. The majority of the cases in the hospital are septic, or, to put it in other words, are not healing by first intention.

It is certainly very difficult to secure aseptic conditions under the circumstances, for nearly all the wounded have travelled for days over rough roads in jolting conveyances, and during this time have only been dressed once or twice. In the hospital the beds are crowded close together, the linen and coverings of the beds are often soiled with septic discharges, and owing to the absolute lack of training in the attendants, wounds are touched with fingers, dirty dressings are dropped on the floor, and many easily avoidable openings occur for septic infection. But apart from these more obvious shortcomings, much might be done in the treatment of these cases by some system in dressing. Among all these cases I do not believe any are dressed more than once daily, and very often a case is not dressed for two or three days; it is very usual when a case comes to be dressed that the dressings are absolutely saturated with pus, which soakes through on to the bedclothes. No other dressing is used than this dry sterilized gauze; compresses or hot fomentations I have not once seen used on any case in the hospital. There is no regular time for dressings, which are done either in the morning or afternoon, according as time permits. This is, perhaps, intelligible, but the dressings are all done either by the surgeon himself or his assistant, everyone else either watching, commenting, or rendering some minor assistance. I was about the hospital for a week, and might, perhaps, have been allowed some simple dressings; apart from myself there were, however, two juniors and two assistants with considerable knowledge at bandaging and surgical work, any one of whom was quite capable of dressing any case in the hospital; in addition there were always two or three doctors about the hospital who were anxious to render any help they could. Had the dressings been divided among these people each case would have been efficiently dressed three or four times in the day. Surgery of the major kind is excellently performed, but the equally important branch of continued treatment leaves much room for improvement. A case that exemplifies what I mean is that which I described of the man with the explosive wound of the left fibula and tibia. This is in an extreme degree of sepsis, so that every day the dressings are soaked through and through with pus; the wound is a great open cavity in which the broken ends of the tibia, by now absolutely necrotic, project. The skin has sloughed over an area embracing two-thirds of the circumference of the leg, and the remainder is brown and dry and completely undermined, so that a probe can be passed completely round the leg under the skin; of course, there is no question of saving the leg, and yet daily heads are shaken over it. "Yes, it will have to be amputated," and then the farce is gone through of pouring peroxide over it and wrapping it

up in sterile gauze to swim in pus for another twenty-four hours. If the leg was not to be amputated, it might have had a chance were it treated by frequent dressing, by irrigation, or continuous baths.

The hospital is at the base; it has every necessary appliance and supplies in plenty, there is an abundance of assistance, and at present there is no stress of work, so that the cases might be treated by all the means available to modern surgery. Several cases have drainage tubes in; I have not once seen these removed to be washed, boiled, and re-inserted. Again, in many of these cases which become so septic, the pus tracks between the muscles or pockets under the skin; a counter-incision to assist drainage would greatly hasten the recovery of such a case, but this never appears to be done. The same set of appliances—peroxide, iodine, sterile gauze, and bandage do duty for the whole of the cases.

At present there is a lull here in Montenegro, as fewer wounded are arriving. The news from our front is scanty and heavily censored, and that from the other centres of war is of the vaguest. All seems to point to a rapid finish to operations, so that this little town, peaceful enough though it looks just now, may soon resume its normal appearance. Only a few new graves, a few cripples, and the memories of those who have been in the heat of it will remain at Cettinge to mark these six eventful weeks of 1912.

We have heard in a later report that our correspondent, together with a volunteer from Bart.'s, is in charge of a small hospital at Rjeka; that he has attended a case of difficult labour without the aid of appliances; and is making a big reputation for himself in the locality.

Change of Address.

N. S. Carruthers, M.R.C.S., L.R.C.P., from Cressage, near Shrewsbury, to The Firs, Reedham, Norfolk.

A. H. Carter, M.D., B.S., from 9, George Street, to 24, Waterloo Road, Wolverhampton.

T. P. Cooper, L.D.S., from Guy's Hospital, to the Turret, Sea Road, Bexhill-on-Sea.

Spencer S. Crosse, M.R.C.S., L.R.C.P., from Guy's Hospital to Royal Berkshire Hospital, Reading.

F. Kahlenberg, F.R.C.S. Ed., from Guy's Hospital to St. Clair, Dunedin, New Zealand.

E. Reid, M.R.C.S., L.R.C.P., from 200 to 164, St. Helen's Road, Swansea. Telephone No. 1126 Central.

H. Webb, M.R.C.S., L.R.C.P., from Guy's Hospital to East Suffolk Hospital, Ipswich.

The Editor will be very glad to receive a postcard with notes of any change of address.)

Appointments.

Naval and Military.

Royal Navy.

Fleet Surgeon E. R. D. Fasken is placed on the Retired List, 17th November, 1912.

Surgeon F. G. Goble is appointed to Hong Kong Hospital, 1st November, 1912.

Surgeon R. Willan is promoted Staff Surgeon, 21st November, 1912.

R.A.M.C.

Captain H. G. Gibson, on return from Malta, is appointed for duty in Irish Command.

Captain J. E. Powell has joined the R.A.M. College for the promotion course to rank of Major.

Indian Medical Service.

Captain P. K. Tarrapore has been appointed Superintendent, sub. pro. tem., of Mandalay Jail.

Civil.

H. Chapple, M.C., F.R.C.S., has been appointed Consulting Gynæcologist to St. John's Hospital, Lewisham.

H. V. Hickman, M.B., M.R.C.S., L.R.C.P., is appointed Honorary Anæsthetist to the Leyton, Waltham, and Wanstead Children's and General Hospital.

Pass List.

University of London.

October, 1912.

THIRD EXAMINATION FOR M.B., B.S. DEGREES.

PASS.

Aldis, C.	Monaghan, P. J.
Cole, T. P.	Richards, J. F. G.
Genge-Andrews, G. E.	Stewart, J. L.
George, W. S.	

SUPPLEMENTARY PASS LIST.

Group I.

FitzMaurice, A. L.	Miller, G. S.
Joly, J. M.	Robinson, W.

Society of Apothecaries.

The following has passed in the subject specified:—
Medicine (Section II.)—W. S. Hyde.

Royal College of Surgeons of England.

First Fellowship.—A. S. Liebson.

The Distribution of Nerves in the Dental Pulp and in the Dentine.

CLINICAL LECTURE BY HOWARD MUMMERY, L.D.S.

Gentlemen,—My friend Mr. Hopson asked me to address you this afternoon on the distribution of the nerves in the pulp and dentine. I am sure he is better able to present this subject to you in a more lucid manner than I am. But I have introduced a new heresy into dental histology, and now he prefers to leave the heretic himself to deal with it.

I do not think you need much persuasion to make you believe that the dentine is sensitive, and I do not think your patients will require any further conviction than your ministrations will afford. Still, John Hunter considered that dentine was not sensitive. Whether he argued on his own experience I do not know, because it was unlike John Hunter to draw conclusions from a single experience. Still, no one in his day appeared to have agreed with him that dentine was not sensitive. But we know that dentine is very sensitive tissue indeed. Yet the problem of the mode in which sensation is conveyed from it to the brain has long been an unsolved one. This is chiefly due to the difficulties connected with tracing organic elements in the hard substance of the tooth. The dentine having so long eluded observation, it was not much to be wondered at that the much more minute structure of the ultimate nerve fibrils escaped observation for so long a time, and it is only in consequence of the improved methods of histological research during the last few years, that this investigation has been rendered possible. I will not dwell on the different views of innervation of the dentine, because I know Mr. Hunter has already dealt with that in his lectures. But I may say that for many years past it has been treated by most authorities as a doubtful question, some considering that the conduction of sensation through the dentinal fibril to the odontoblast cell would account for all the phenomena; others, such as Professor Konicker, Professor Klein, and Sir James Salter—all great authorities in dental histology—consider that the ultimate distribution of the nerves of the pulp has not been traced. And the two latter were of opinion that it would ultimately be found that true nerve fibres ran in the dentinal tubes, and that the dentine would be brought into line in that way with the other tissues with regard to this mode of transmitting sensation. It seemed very unlikely that dentine should be an exception to all other tissues of the body and should not conduct sensation by means of nerve fibrils. The view held by Hopewell Smith was that the odontoblast cells acted as a sort of ganglion cells through which sensation was transmitted. But there are many objections to this, one of them being that dentine is formed from the mesoblastic tissue, and the nerves from the epiblastic tissue, so mesoblastic odontoblast cells conduct from epiblastic tissue to nerve cells, which is always considered to be an impossibility.

With respect to my own investigations, I have long thought that true nerve fibres ended in dentinal tubes, and more than twenty years ago I had seen what I considered distinct evidence that such was the case. It is only in the last few years that I have been able to procure specimens which I considered adequately proved that the nerves did pass into the dentine. You are aware that the nerve fibres enter the pulp with the blood vessels at the apical foramen, that they enter into a considerable number of bundles of medullated fibres; in fact, the nerve supply of the pulp is so abundant that it is difficult to understand how it could be destined for the pulp alone. And another very striking point is that in longitudinal sections many of these nerve bundles traverse the pulp up to the crown at the cornu of the pulp without giving off any branches to speak of. There are some, but only a few.

But you see a large bundle of medullated fibres traverses the tooth to the cornu. I hope to show that these terminals sent off at this point and elsewhere in the pulp are not individual nerve fibres, but bundles of them; and the probability is that they are given off in the dentine. It is well known that the medullated fibres lose their sheath, or neurilemma, and their medullated sheath—which is probably their protective investment—during their passage through the tissues. And as they reach their destination these sheaths are lost, and they are distributed as neural fibrils or the elements of the axis cylinder of the nerve. This neural fibril is the essential part of the nerve fibre. It leaves the cell in the brain as a naked neural fibre; as it passes through the tissues it acquires a neurilemma, and further on still it sheds the neurilemma and again becomes a naked fibril. You will see it distributed to the dentine as a beaded fibril. I shall show you presently by means of slides what is evident under the micro-

scope, and you can see sections on the table. The axis cylinder is shewn made up of neural fibrils dotted or beaded. This is especially brought into view by chloride of gold stain, by the method I have been using lately, a modification of Freud's. You will see the bundles of axis cylinders running alongside the blood vessels, and the blood vessels have taken on the contrast stain, namely, eosin. The medullated fibres subdivide in the pulp, and break up into very fine fibres distributed in the substance of the pulp. But most of these fine fibres are given off in the nerve fibres on the periphery of the pulp, and pass into a dense plexus immediately beneath the odontoblasts. This is called the plexus of Reichsdal, after the histologist who described it. This plexus appears to be formed by an interlacement of fibres, rather than anastomosis; they seem intimately connected without being fused into one another. From this plexus fine fibres stretch out again in more or less parallel lines between and around the odontoblasts; they seem to involve the odontoblasts in a meshwork in many cases. Then they pass into a narrow plexus at the margin of the dentine. This plexus has been described as the terminal plexus of the nerves of the pulp. It was considered that this was the way in which the nerves of the pulp ended. But I have been able to show that from this marginal plexus, as I have called it—we cannot now call it the terminal plexus—they again proceed and pass into the dentinal vessels. You will see that by the slides on the table; and they traverse the dentine in company with the dentinal fibril. They are very closely attached to the dentinal fibril, for often when the latter is pulled from the dentine you will see the little nerve fibres running alongside. This mode of distribution appears to occur at all parts of the periphery of the pulp, at the tip of the cornu. In two or three specimens which I have lately cut, the bundles of nerve fibres run up to the point I describe. They are serving some purpose in the pulp, and I have seen them sending off their fibrils and passing into the dentine in very much larger bundles than round *here*, where they go in very fine bundles. They are thicker bundles, but not thicker fibres. You will see the red stained part is the bundle of medullated fibres. You cannot see the sheath, because it is not stained, except by a special osmic acid stain. There is a complete absence of the plexus of Reichsdal here, but you will find it at other parts of the tooth. When I obtain the fresh material, which I am at present in want of, I shall endeavour to cut as many sections as possible in this plane to ascertain if this mode of termination at the cornu is constant. It is difficult to obtain a sufficient number of young teeth, although I have had the assistance of many friends. I must have young cusps, and if any of you should come across such, and will put them in 10 per cent. formalin for me, I shall be glad. They should, of course, be put in as soon after extraction as possible. In many preparations I find beaded fibres pass in close connection with the dentinal fibres, and more than one nerve for each tube. But it is difficult to tell how many go into a tube, because you never cut sections in which you have only one. And that makes dentine such a difficult subject to investigate because of the crossings and the undulations of the tubes. They can be traced as fine dotted lines into the dentine, and preparations have been successfully impregnated with nitrate of silver and with protargol, which is an organic salt of silver, showing the whole of the dentine permeated everywhere with delicate branches. It has been considered that these fine branches and tubes are very little visible in the crown of the tooth. There are very few under the enamel, and there are not otherwise very many of these fine branches. They are very plentiful in the root. These specimens show plainly that the whole of the dentine is permeated with these granules, and the reason we have not seen them is that we have not used the right stain to bring them out. The ordinary aniline stain will not do it. Nitrate of silver or protargol will show that the dentine is permeated with long delicate branches, which show under the microscope and in the drawings. This is not an ordinary impregnation with nitrate of silver: they have to be impregnated with nitrate of silver and reduced with pyrogallic acid and formalin, and that brings down the nitrate of silver in black, and stains the dentine a deep brown. In the fine branches you can detect these dotted lines close up by the enamel, and close to the cementum even little dotted lines are clearly seen.

These lines are very fine indeed, and apparently represent the finer divisions of the neuro-fibrils which enter the pulp. It evidently shows that these dotted lines get finer and finer as they near the periphery of the tooth. The neuro-fibrils are capable of dividing. It is a point about which there had been some doubt, but there is now no doubt that the neuro-fibrils do divide in the tissues. The slides under the microscopes show these divisions and lines with very great distinctness. The same is seen at the junction of enamel and dentine, where

the dentinal tubes are coarser than at the cement margin, many of the tubes looking truncated, as if they had been cut off. That is explained by the dentine undergoing, during development, an interchange of absorption and deposition. It is little understood why that should occur, but it looks as if it is so. These truncated ends of the tubes you do not see in the cementum. But, at all events, you can trace in the fine tubes under the enamel the same thing. I therefore consider that the true terminations of the nerves are by fine arborizations of other nerve fibres beneath the enamel and cementum. In regard to where the dentinal tubes penetrate the enamel, and in the so-called spindles which you often see in teeth, the curious projections into the enamel, I cannot say whether the nerve fibres penetrate into these, because it is exceedingly difficult to get a thin section of enamel and dentine in contact by the Vial process, which is the only one to show it. If I can get a tooth and happen to cut it in the right plane to get these spindles, we can see whether these dotted fibres pass in. Professor Reaumer says they do, and that this is the final termination of the nerve fibres in the pulp. He said he saw nerve end bodies stained red by chloride of gold. I now show you the section of a pre-historic tooth, taken from one of the British battle-fields. I am sure, from the appearance of the spindles in this case, you would say there was a nerve end body in the spindle. That was a tooth which had been dried for centuries. That looks so much like it that it is easy to understand how one might be mistaken in looking at these highly contractile bodies. It is possible that nerve endings are there, but I do not think it has been proved. The specimen which I spoke of makes one very careful about giving an opinion.

It seems astonishing that such an enormous number of nerves should be distributed to the dentine. It is difficult to understand, and it has been suggested that these nerves are not all nerves of sensation, but that many of them may be trophic nerves. Of course, all cells which are engaged in active secretion have nerves, and it is possible that this has some connection with calcification of the tooth. There is no doubt that in the pulp you sometimes see non-medullated nerves. I have seen many, especially by the Vigat method. You can often see non-medullated fibres accompanying the medullated fibres.

I have gone fairly well over the question, and I shall now show you some slides on the screen.

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 486.*)

XII.

SOME PHYSICIANS, A SURGEON, AND A POET.

"*And why should this be thought so odd?*
Can't men have taste who cure a phthisic!
Of poetry though patron god
Apollo patronizes physic."

The Newcastle Apothecary, Peter Pindar.

In any reference to the members of hospital staffs in the early eighteenth century it is inevitable that the physicians receive greater notice than the surgeons. The physicians have always formed an independent corporation from the time when Henry VIII.'s physician, Linacre, formed their College in 1518. From the first the surgeons had been handicapped by association with the barbers in the joint corporation founded in 1540, in the same way that the Apothecaries had been connected with the Grocers until this partnership was dissolved in 1616. The surgeons were longer in obtaining release from their yokefellows. Not until 1745 was the Barber-Surgeons' Company dissolved into its component elements, and it has been said that John Hunter first raised the surgeons to the status of gentlemen. The Apothecaries, despite their independence of the Grocers, exercised a hybrid profession in which the druggist alternated with something of the nature of the general practitioner of today, and it was the latter aspect of their calling that brought them into frequent collision with the Physicians, the consultants of the period. The Court of Star Chamber in June, 1632, decreed that the Apothecaries should make no alterations in prescriptions brought to them to be dispensed; should sell no poisons or medicines without a bill or prescription of a physician, *or upon a bill either written or subscribed by him that either buyeth or taketh the same,* and that all such bills or prescriptions should be retained and filed by the Apothecary as his warrant and order for selling the same. In 1703 the House of Lords decided that the province of the apothecary included not merely the compounding and dispensing of drugs, but the direction and ordering of their administration.

Before the eighteenth century scarcely any instruction in medical subjects was to be obtained in England, and the large majority of physicians gained their knowledge by studying at one or more of the Continental Universities before returning to Oxford or Cambridge to take their degree in Medicine. Physicians

on the staff of a hospital at that period rarely visited the wards, and never saw the majority of their patients at all. "The business was transacted by consultations held at the physician's house with the apothecaries who related the patients' cases." Similar meetings were held at certain coffee-houses to which eminent members of the profession resorted, and his choice of a coffee-house was a recognised declaration of the political views to which a physician inclined. As a supporter of the Whigs "Dr. Mead used to go into the City to *Batson's,* and meet all the apothecaries and prescribe." Tories, on the other hand, frequented the other "assemblage of sable suits and tremendous perukes" at *Child's* coffee-house. A definite choice of politics was a necessary prelude to any aspirations a young physician might have towards an appointment to the staff of one of the great London hospitals. After choosing his party and his coffee-house, one authority tells us, his next "business was to be indiscriminately obsequious to all men: to appear much abroad and in public places, to increase his acquaintance and form good connexions: in the doing of which, if he were married, a wife that could visit, play at cards and tattle, was oftentimes very serviceable. A candidate for practice pursuing these methods, and exercising the patience of a setting-dog for half a score of years in the expectation of deaths, resignations, or other accidents that occasion vacancies, at the end thereof either found himself an hospital physician, and, if of Bethlehem, a monopolist one and a very lucrative branch of practice; or doomed to struggle with difficulties for the remainder of his life."

The great London hospitals were divided by the rival political factions. St. Bartholomew's and Bethlem were Tory strongholds, whilst "the hospital of St. Thomas, and that of Guy, in Southwark, were both under the government of dissenters and Whigs; and as soon as any one became physician of either, his fortune was looked upon as made."

It will be remembered that Guy came of an Anabaptist family; and although by his entry into Parliament he must have lapsed into "occasional conformity," it is easily understood how he came to be attracted by the prevailing spirit at St. Thomas's rather than by that of the other Royal Hospital. His professional mentor, Dr. Mead, was strongly committed to the Whig party.

Richard Mead (1673—1754) was the son of a dissenting minister at Stepney who had found it necessary to remove with his family to Holland to escape the persecutions which followed upon the discovery of the Rye House Plot. Young Mead was educated at Leyden and Utrecht, and took his degree in medicine at Padua. After his return to England his professional advancement was rapid. He was admitted Fellow of the College of Physicians and M.D. of Oxford; was present at the death-bed of Queen Anne; and, later on, was appointed physician to George II. He was a governor of Bethlem and of Christ's Hospital, and "a great promoter" and governor of Captain Coram's Foundling Hospital. An episode in his early professional career has been often related. Mead, after a prolonged sitting in the exercise of a hospitality for which he was famous throughout his life, was called at midnight to attend a duchess whose indisposition was likewise to be attributed to too generous a table. At the bedside the physician stumbled, but pulled himself together with the exclamation, in self-reproof, "Drunk again, by G—d." The duchess, impressed by the correctness with which, apparently, he had diagnosed her case, implored him to keep her secret, promising to advance him by every means in her power, "and Mead made his fortune."

Another factor in his progress was the success with which he cultivated the good graces of Dr. Radcliffe, to whose practice he ultimately succeeded.

Besides these aids to fortune, the contemporary gossip of Batson's added the influence exercised by his father. "It has been said that when Mead began to practise he was a constant frequenter of the meeting at Stepney where his father preached; and that when he was sent for out of the assembly, which he often was, his father would in his prayer insert a petition in behalf of the sick person."

Nevertheless, it is said that he raised the medical character to such a height of dignity as was never seen in this or any other country. His name is enshrined in one of Johnson's magnificent phrases, "Dr. Mead lived more in the broad sunshine of life than almost any man."

His contemporary upon the staff of St. Thomas's, William Cheseldon, was a man of almost equal celebrity. He was a surgeon who specialized in ophthalmic work. Pope, describing himself as "far from a lynx," refers to both men in one of his "Epistles."

"*I'll do what Mead and Cheseldon advise*
To keep these limbs and to preserve these eyes."

A curious—but improbable—story is told of Cheseldon discovering in an obscure country town a blacksmith who was "in the habit of performing the operation for extracting the cataract." The surgeon, much struck by the performance, was pleased to instruct the man in the orthodox methods, and at a subsequent visit asking him what progress he had made, received this reply: "Ah, sir, you spoilt my trade, for after you explained to me what I had been doing, I never dared try again."

Surgery was still in the rudimentary stages in England in Cheseldon's early days. In 1715, he told Voltaire, he found it necessary to have his instruments specially made for him; and even ten years later it was said that nearly all the surgeons in London were Frenchmen. Lithotomy, although, presumably, at least as old as the Hippocratic Oath, had at that date been revived with success in Paris, and it was not

long before the Borough hospitals acquired a special celebrity for this operation. The same Star Chamber decree of 1632, at the instance of the physicians, already quoted, had required "that no surgeon in London or within seven miles thereof should take off a limb, trepan a head, open a chest or belly, *cut for the stone,* or perform any capital operation such as their own bye-laws require them to call in the attendance of their Wardens or Assistants, unless in the presence of one or more physicians of the College or of His Majesty's physicians"; and throughout the eighteenth century the special permission of the hospital governors had to be obtained each time it was proposed to perform this operation. The Borough hospitals early decided to provide "a convenient place for cutting" and "a ward proper for cut patients."

Dr. James Jurin, the first physician to Guy's Hospital, it is expressly stated, owed his appointment to his professional attainments rather than to any political or other influence.

As became a physician, Jurin took a strong line with regard to the treatment of calculi by non-operative measures, and warmly advocated the internal use of Soap-Lye (by virtue of the contained lime and potash) as a solvent. He afterwards prepared a solution, possessing the same qualities but less nauseous to the taste, which he named Lixivium Lithontripticum. Although he had employed the remedy upon himself with some success, it was generally voted to be too heroic, and was at length superseded by the improved operative treatment.

To return to the Whig sentiments of the Borough Hospitals, our authority tells us that Mead's success "was an inducement, with others of the dissenting ministers, to make physicians of their sons. Oldfield, Clarke, Nesbitt, Lobb, and Munckley were the sons of dissenting teachers, and they generally succeeded." Three of the physicians named were appointed to the Guy's staff. John Oldfield was the son of Joshua Oldfield, of the Maid Lane Presbyterian Chapel, Southwark; he was M.D. of Leyden, and of Cambridge, and was at Guy's from 1724 to 1748. Matthew Clarke (Leyden and Cambridge, 1732–1754), was the son of the minister of the Independent Chapel in Miles Lane. Nicholas Munckley (Leyden, Aberdeen and Cambridge), was physician to Guy's 1748–1770.

Dr. William M'Ghie was a Scotchman, who qualified in Edinburgh. He had fought on the side of the Government in the rebellion of 1745, "and was engaged in the skirmish at Falkirk, which he ever spoke of as an ill-conducted business." After qualifying he soon discovered "the best road" in his native land, but was discouraged to find London already overstocked with his compatriots, until "by the favour of Dr. Benjamin Avery, the treasurer of Guy's Hospital, who had been a dissenting teacher, and was then at the head of that interest, he was appointed one of the physicians of that charity." He was "one of those few of his country whom Johnson could endure." He was not successful, and dying in poverty, was buried at the expense of his friends.

By our quotation at the head of this chapter we have endeavoured to establish the connection between Medicine and the Muses, in order to introduce Dr. Mark Akenside, physician and poet. Medical poets have existed before and since his time. Sir Samuel Garth, a famous London practitioner of the early eighteenth century, composed a long mock-heroic poem, "The Dispensary," upon the subject of a quarrel between the College of physicians and the Society of Apothecaries. A little later, Dr. Arbuthnot formed one of the group of satirists headed by Swift and Pope. Still later came Goldsmith, who was, however, distinctly greater as poet than physician. St. Bartholomew's, we believe, claims a brief association with Percy Bysshe Shelley, whose great contemporary, John Keats, qualified from Guy's. Here, too, we had for a while a member of the "Pre-Raphaelite Brotherhood," a poet and friend of Rosetti, John Lucas Tupper, for some time artist to this hospital.

Akenside studied medicine at Edinburgh, took his degree at Leyden in 1744, and afterwards came to London, seeking to establish himself in practice with indifferent success. He was appointed Assistant Physician to St. Thomas's Hospital in 1759, and two months later was appointed to the Senior Staff. Lettsom, a student at St. Thomas's, who afterwards became famous, described him as "the most supercilious and unfeeling physician he had ever known." Smollett ridiculed him in "Peregrine Pickle" under the character of "The Doctor," into whose mouth are put some of Akenside's actual speeches.

In spite of his brutality to his patients he seems to have enjoyed a contemporary reputation as a physician of discernment. His chief publications were, in 1744 "The Pleasures of the Imagination," and in 1764 "On Dysentery," the latter in prose.

His poetry is distinctly in the taste of his century, and to-day very few would endorse Dr. Johnson's judgment in preferring Akenside's work to that of Gray. Those who have any acquaintance with the poetry of the first half of the eighteenth century, will recognise in it a typical example of the school of verse in which *lucid orb, liquid cloud, blooming youth, conscious grove, shady brink, ardent eyes,* and *sable tresses* ring the changes with *sublime, genial, limpid, radiant, fancy, bosom, imagination,* and so on.

A brief quotation, where every substantive is attended by its jingling epithet, will illustrate the method.

> "*I looked, and on the flowery turf there stood*
> *Between two radiant forms, a smiling youth*
> *Whose tender cheeks displayed the vernal flower*
> *Of beauty; sweetest innocence illumed*
> *His bashful eyes, and on his polished brow*
> *Sate young simplicity.*"

Our readers will be content to accept this extract as a characteristic example and, *ex pede Herculem* . . . . (although this is not the lowest extremity to which Akenside's composition descended) to deduce the rest.

(*To be continued.*)

Can Aspirin cause Pneumonia to Abort?

I ASK this question because in my last eight cases of the disease, aspirin, given at once, and repeated every few hours, has been followed by a most remarkable cessation of the disease. No case lasted more than forty-eight hours, and in most the disease came to an end at once. It all sounds much too good to be true, but I am only telling that which I have seen. In many of the cases the diagnosis did not depend on my wits and stethoscope, but were backed by the examination of the sputum. Dr. Galt, our bacteriologist to the Sussex County Hospital, in five of the cases made the examination and gave his verdict—"Pure culture of pneumococcus." I will briefly give the details of some of these cases.

CASE I.—An old gentleman with contracted kidneys, aged 84, had been suffering from influenza for a few days, when he was attacked early one morning with a sharp pain in the left chest, and a sharp rigor. I saw him about 9 a.m. and found him with all the symptoms of a pleuro-pneumonia. His temperature was 102.5; his pulse, 110; constant cough, great pain on inspiration; coughing up a quantity of bloody sputum. Over his left base there were the usual symptoms and signs of pleuro-pneumonia. I gave him fifteen grains of aspirin, ordered a poultice, and told him to stay in bed until I came in the afternoon. I called again about 3 p.m. and found him sitting up by the fire declaring he was quite well. He looked a different man, and had lost his raised temperature and hurried pulse. I could still hear a rub and fine crepitation, but breathing now gave him no pain, and the cough no longer distressed him. There was no further rise of temperature; no more pain; the cough died down rapidly; and there was little more for me to do except to preach care and stopping in bed—a sermon he did not and would not listen to.

CASE II.—This case followed the last one in a few days. This patient, a gentleman aged 80, had, five years ago, battled through a most severe attack of pneumonia. He was now attacked in the early morning with all the old symptoms, and sent for me promptly because he recognised his old enemy. In no way did the attack differ from Case I., for he presented just the same symptoms, and they came to a full stop just in the same fashion, as I have already described.

In both these cases the attack was severe. Both patients looked "stricken." Pain, high temperature, cough, bloody expectoration, all made me sure that I had a hard fight before me, and in both cases after the first dose of aspirin I had nothing at all to do except to watch and to get the patients to take as much care of themselves as I could, and that was very little. In this case also the verdict was "pure culture of the pneumococcus."

CASE III.—This case was indeed a remarkable one. The patient was a gentleman, aged 60, of magnificent physique, but who boasted that he always took a bottle of whisky a day. A hard edge to his liver, and the red venules on his face confirmed his boast. One day on crossing London Bridge on his way to a directors' meeting, he was seized with a sharp rigor, and could with difficulty get to his meeting. There he added considerably to his "bottle a day," and came back to Brighton feeling very ill. At 2 a.m. an agonising pain attacked him over his left lower chest, and I was sent for. I shall never forget the look of the man when I reached his bedside. His face was deep purple, every attempt to inspire was agony. His pulse was going at a fearful rate, and was most irregular in pace and force. On listening over his chest I could hear nothing, for his respirations were too shallow and short to let me hear anything definite. With great difficulty I got him to swallow fifteen grains of aspirin in milk, the difficulty being due to his terrible dyspnœa. In fifteen minutes there came the most wonderful change over him. It was a veritable transformation scene. The respiration grew easier and slower. The temperature began to come down, and in one hour dropped from 104 to 100. His pulse slowed down and steadied itself. But the most remarkable obvious change was that of the colour of his face. Gradually the natural rosy high colour of his cheeks replaced the horrid deep purple hue that I found on him when first I arrived. I have never before seen such a wonderful change in any sick man excepting once, and that was in a man dying in Guy's Hospital from bronchitis and dense London fog. In that case bleeding brought about the salvation of the man; in this case aspirin. I remained with my patient one hour and then left him comfortably free from pain; breathing easily, though still fast. I saw him again at 10 a.m. and found him still free from pain, but now I could hear all the characteristic sounds of pleuro-pneumonia. His temperature had gone up to 102, but he was not in any way distressed, and wanted to talk politics. Next morning, thirty-six hours from the rigor on London Bridge, I found him sitting up in bed, smoking his cigarette, reading his paper, and declaring himself to be perfectly well. To all intents and purposes he was well, for there were no more symptoms of any sort. For some two or three days I could trace the disappearance of his chest sounds, and that was all. In this case the amount of the blood coughed up was very great for pneumonia, and in this case also came the verdict of "pure culture."

CASE IV.—This is a very short story to tell. The patient, a strong big boy of 15 years of age, was at school; on the day he felt ill he had played a severe game of football, but ate his tea feeling none the worse. At 8 p.m. he felt so tired that he asked the master's leave to go to bed, and obtained it. At 9 p.m. he sent for the master, who went up and found him in bed, shivering badly, and in great pain over his right chest. I was at once sent for and got to his bedside at 9.30 p.m. I found him with all the signs of early pleuro-pneumonia, and gave him aspirin, ordering it to be repeated in two hours. His temperature was 103, and his pulse nearer 140 than 120. Next morning he was well. I could hear no rub, no crepitation, but only a little dulness on percussion, and a distinct comparative want of respiratory sounds over the lower ribs. In this case I could get no expectoration to examine. Indeed, he was cured too soon for expectoration to form. He got his dose of the drug just half-an-hour after the earliest sign of the disease.

CASE V.—This was an extremely exciting and interesting case to watch, for in it the pneumococci refused to admit that they were beaten, and for forty-eight hours we had a series of rounds, as in a prize fight. Each round ended in the defeat of the pneumococci, but again, and again, they came up to the scratch, and were not finally knocked out of time "until the end of the sixth round." In this case I was happy in that I had the

assistance of Dr. Hobhouse, a consultant. He stood by and saw all that happened. To make things still more exciting and anxious, the boy had lost a brother of pneumonia shortly before, and the mother's anxiety and fear over this remaining son's attack can be imagined. The boy was at school, and was 13 years of age. He was attacked about 5 a.m. by rigor and great pain. The mistress diagnosed the disease and sent for me early. When I arrived I was met by the mistress, full of apologies, she told me she had given aspirin in the hope that some relief to the great pain might be obtained, and that now the boy was well. I went up to him and found him apparently well. His temperature which had reached 105, was now nearly normal. Pain was gone, cough was now very little, and there remained little to bear out the story excepting one piece of rusty sputum. On examining him I only found some deficiency of breathing over the left chest. I left orders for ten grains of aspirin to be given if any of the symptoms recurred. We had not long to wait. In a short time up rushed the temperature to 105 again, and back came all the old symptoms. This time I could hear distinct crepitation over the base, but once more there came a complete wiping out of all the symptoms after the aspirin. This happened six times in the forty-eight hours, when the disease finally abandoned the attack. I could hear for a few days longer a distinct pleuritic rub, but there were no more signs of suffering or illness for the lad to combat. He was left hardly any the worse for his six fights, and was soon in all ways well and strong. In this case also Dr. Galt found the pneumococci.

I need not weary your readers with my other three cases, for it would only be to tell just the same tale again. In all my cases the aspirin has succeeded. In no single one has it failed. I do not attempt in any way to account for this, and will leave the explanation to men with more learned brains than mine. One thing I will affirm, and that is, I have given you the facts. In all these cases I was called in early—at the very onset. What the result would have been had the disease got twenty-four hours' start of me I cannot say. It may be that by the time the patient reaches the hospital, and it has been decided to call in a consultant, the golden opportunity will have been lost, and the poison have got a foothold from which the aspirin cannot oust it. Therefore, I will ask your readers who are general practitioners, like myself, to give the treatment a trial at the earliest opportunity. Pneumonia is now terribly common; on all sides cases are arising. Therefore, if medical men will only give the treatment a trial, the question will be settled in very few weeks. If it turns out that there is nothing in the aspirin treatment, still no harm will have been done. On the other hand, if we find that others meet with the same happy success as I have, the relief to mankind will be incalculable.

A. SCOTT.

141, Marine Parade, Brighton,
May 1911.

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

Iodide of Potassium.

Sir,—In your issue of November 9th under "Passim" you ask old Guy's general practitioners to write you a few of their experiences, kindly suggesting that some of them might be useful. I humbly comply with your request, and would say a few words on the value of iodide of potassium.

It is the more pleasure for me to do so because I was led to learn the value of this drug by a late distinguished physician of Guy's, Dr. Moxon, who was a great loss, not only to our hospital, not only to the profession, but to the public at large.

In my day he lectured on Materia Medica. I can see him now, half-sitting on the front of the lecture table, as was his wont, talking to us about the value of iodide of potassium in syphilis, gout, rheumatism, etc., and then he uttered these prophetic words:—"Gentlemen, you have all had syphilis. If *you* have not had syphilis, your fathers had syphilis, and if your fathers did not have syphilis, your grandfathers had syphilis. Anyway, gentlemen, you have *all* got syphilis."

I said his words were prophetic. How about the ravages of syphilis which we now know to be sapping the strength of the nation, its prevalence proved by the Wassermann reaction and our better diagnostic methods? Moxon knew it then, over thirty-three years ago.

Think you that the ravages of syphilis end when no naked eye or microscopic evidence is forthcoming, or that its influence is gone when the Wassermann reaction, after several tests, proves to be negative? I will not insult your intelligence by thinking so, but yet have you let your mind dwell sufficiently upon the alterations in the germ and sperm plasm, probably chemical, caused by the syphilitic poison, which passes on, not unto the third and fourth generation, but who knows? very possibly to the twelfth, thirteenth or twentieth generation.

Then how about the value of iodide of potassium?

Thanks to Moxon, I am positive that many cases which have been under my care have had their health restored, who otherwise would have suffered from permanent ill-being, or have died.

I never forget his statement. I have never failed to act up to its teaching. Don't misunderstand me. I don't mean to imply that every case that is benefited by iodide of potassium necessarily has a syphilitic history. Certainly not; I am only speaking of its great value.

Let me quote one case. I will not give others, because it would only unnecessarily occupy your valuable space. Those who run can read, and if they are blind God help their patients.

A man, aged about 40, consulted me because he had slipped and sprained his ankle. He rested, etc. The foot got worse, and I was afraid of deep-seated suppuration. On about the tenth day Moxon flashed across my mind. The patient commenced large doses of iodide of potassium within an hour; within forty-eight hours there was marked improvement in the foot, and he made a rapid recovery, ending in complete use of the foot and of the ankle joint. Some weeks afterwards I asked him if he had ever had syphilis. He replied, "Yes, eighteen years ago."

I will say no more except this to my young friends, Guy's present-day students, "Remember Moxon's words and act on them."—Yours faithfully,

November 25th, 1912. AN OLD GUY.

DEAR SIR,—I most sincerely hope that your appeal for articles from general practitioners will meet with a hearty response. The scientific writings in the *British Medical Journal* and *Lancet* are of no practical use to the general practitioner, who would, consequently, welcome something of real value to him in his everyday life. Many practitioners have not the time for writing, others, like myself, are deterred by the fact that they cannot put their knowledge clearly and concisely on paper.

With my old friend's, Mr. Gerald Sichel's, suggestion in the last GAZETTE, about lectures on general practice, I fully agree, but I would suggest three lectures a session to enable the lecturer to cover the necessary and essential points. The lecturer selected should have a very wide knowledge of practice and have handled all classes of patients from the "upper ten" to parish. It is almost as essential to diagnose, and be able to treat, the patients themselves, as to diagnose their diseases (or absence of them!) and treat them. In genuine illness, it is of material assistance to treatment; in imaginary troubles, it is the key note to success. The newly qualified man who, metaphorically speaking, is a walking dictionary of medicine, surgery, obstetrics, bacteriology, etc., in general practice is always looking for the things that are not! He has never seen, and, consequently, does not believe in, a patient coming to him when there is nothing the matter. Minor conditions, such as indigestion, neurasthenia, stomach derangements in infants, etc., are sealed books to him, yet such cases form the majority, and back bone, of general practice. I would also remind any of those newly-qualified men who have, unfortunately, acquired the oft-quoted "hospital manner," that in private practice patients do *not* come to them from *necessity*, but from *choice*. Professional knowledge will not retain those patients if manner and tact are lacking. On the other hand, the budding general practitioner should be firmly polite. He should not let Lady X. treat herself practically in a minor complaint and attend to her social duties, etc., against his better judgment for the sake of pleasing her and retaining her as a patient, for he will, in that case, fail in his latter object. When serious trouble arises she will shelve him and send for one of his opponents, on the ground that "Dr. Y. is really very nice, but he is not firm enough to give me confidence now that matters are *serious*."

It must also be remembered that the poor have feelings, are entitled to kindness and consideration, and must always have medicine! I cannot agree with Mr. Gerald Sichel that the day of bedside manner has gone; on the contrary, bedside manners and one's general conduct in the sick room are valuable assets. Quiet, easy, yet firm manners give the patient confidence and relief; if a lady patient is about to vomit it is hardly "de rigueur" to hand her a chamber that has been used, as one of my locums did to one of my best lady patients! If a question re menstrual functions has to be asked, it should be done quickly and without having been led up to, and the subject changed after the reply, and not hummed and haw'd about for ten minutes, as I have known young assistants do. The former method leads to no awkwardness, and has the further advantage that, if the lady hesitates over her reply, it is practically certain she is not going to tell the truth, and to act on that assumption is pretty safe!

The intricacies of assignments, partnership deeds, book-keeping, and how to work a practice methodically, all form valuable information to newly-qualified men about to start in general practice. If there are any such who consider information on these points is not essential, I can only tell them that I have taught my assistants all I could on the subjects, and have had the pleasure of receiving grateful thanks from many who benefited by the information.

There are many other points I should like to mention, and I should like to illustrate the necessity of those I have raised, but I feel that I have already taken up too much of your valuable space.

May I, however, in conclusion add that I would advise all newly-qualified men who intend to become general practitioners to avoid locum work, at least to begin with, and to go as assistant to some good general practitioner with a wide experience and range of patients; as, in the former case, they are "on their own," and gain little experience in management, etc. I was once associated with a man of fifty years' experience, and by "sucking his brains" learned more about management of patients and practice generally than I could have learned in twenty years in practice myself.—Yours, etc.,

Highcliffe. J. H. BUSTEED.

Scientific Lesson from the Attempted Assassination of Former President Roosevelt.

MY DEAR SIR,—I beg leave to call your attention to a plan to lessen or prevent crime and other abnomalities, especially such as the attempted assassination of former President Roosevelt. This plan of study is suggested in enclosed leaflet.

I have been advocating this plan for many years in the Congress of the United States, State Legislatures, large cities, and in Legislatures of other countries. The idea is to establish laboratories or bureaus for the scientific investigation of criminals and other dangerous abnormals. I believe that every large city, every State and especially Federal Governments should have such a laboratory, which is just as necessary as a Health Department, if not more so.

> "When anyone sends to the President, the Governor, Mayor, or any prominent citizen, threatening letters, or repeatedly utters threatening words, or attempts to injure such persons, or is unreasonably insistent in demanding to see them personally, such individual should be detained at least a few hours and thoroughly studied by scientific experts in criminal anthropology, psycho-physics and social pathology."

By such study of dangerous, unbalanced, and often illusioned persons, who may be called mattoids, their eccentricities and peculiar behaviour under varied conditions can be determined to such an extent that we may detect them in advance. At present it is almost impossible to do this, because of little or no knowledge concerning them. This ignorance is due to want of systematic, scientific, and sociologic investigation.

Millions of dollars are annually expended by Governments for the scientific investigation of the antecedents, peculiarities, and behaviour of some little bacillus, causing the death of plants or animals, but little or nothing is given for a similar study of the larger human bacillus, which has caused Nations to suffer losses beyond human calculation.

Who can estimate the injury and cost to the World of the assassination of Rulers, or attempts to assassinate them? Shall we wait until more Kings, Presidents, Governors, Mayors, or other distinguished citizens lose their lives at the hands of assassins before we begin scientific study of such dangerous individuals?

I would suggest, therefore, that all Nations adopt some such plan as is indicated in enclosed leaflet, so that there may result an international protection from criminals, especially those dangerous to Rulers and other prominent persons.

I shall be very grateful for anything you can do to further this plan, and should be glad if you will honour the work by publishing this letter in your Journal.

Trusting that such work meets your approval, I have the honour to remain,—Most respectfully,

ARTHUR McDONALD.

"The Congressional," Washington, D.C.,
November 1st, 1912.

Women's Suffrage.

AT the invitation of the Matron and the Nurses' Debating Society, Mrs. Swanwick, of the National Union of Women's Suffrage Societies—law-abiding and non-party—gave an interesting address in the Nurses' Home on the Women's Suffrage question.

She pointed out the very special ways in which nurses with decided opinions could influence the social and economical condition of the women and children among whom they worked.

Mrs. Swanwick also explained the present political position of the question and her hopes for the future.

Afterwards questions were asked, and Mrs. and Miss Fyffe kindly introduced and supplied literature and papers published by the Society.

We learn with interest that steps are being taken to inaugurate a branch of the N.U.W.S.S. among the nurses.

Papers by Guy's Men.

H. J. Clarke, Jun., M.A., M.B., B.C., M.R.C.S., L.R.C.P.: A Case with Comments. Illustrating the Extreme Malignancy of Chondro-Sarcoma.—*Practitioner*, December, 1912.

G. F. E. Morgan, L.R.C.P., M.R.C.S.: Scarlatinal Measles.—*British Medical Journal*, 30th November, 1912.

Frederick Taylor, M.D., F.R.C.P. (First Hunterian Society's Lecture, 1912–13): Sleepiness.—*Practitioner*, December, 1912.

C. Doswell Wallis, L.D.S.: First Annual Report of the Dental Treatment at the Worthing School Clinic.—*Dental Record*, December, 1912.

H. W. Webber, M.S., M.D., F.R.C.S. Eng.: A Case of Appendix Abscess in a Hernia Sac.—*Lancet*, 30th November, 1912.

Reviews, etc.

Massage Manual. By Mabel M. Pireau.

Among the numerous and often unduly complicated books provided for massage students, this little manual should take a high place.

It sets forth, in a remarkably clear and convenient form, the preliminary information required by the student for the I.S.T.M. examination, and seems to supply a want felt among teachers, viz., that of providing their pupils with a book which gives some idea of the ground to be covered, without the addition of unnecessary extraneous information. The book is up to date, and while it does not claim to supply all that may be found in other, and more complicated books, it should form a sound basis for work which can only be thoroughly learnt from practical experience. The book is only 2s. 6d., and is, therefore, within the reach of everyone.

Rugby Football.

GUY'S v. LONDON IRISH.

It is both a duty and a pleasure to congratulate H. Millett, R. S. Kennedy, and A. L. Stokes for contributing towards the victory of London over the South Africans at Twickenham on the date of the above match. Another Guy's man was also very much in the heavy work: I refer to G. R. Hind, a late captain of the hospital, and one who got his Cap, richly deserved, by playing always and persistently for the

hospital. Mr. Hind's own words to me after he was out of his year, and when busy at the hospital during the subsequent football season, were that the greatest disappointment he felt when Saturdays came round was that he could no longer play with his hospital XV. Other games were very pleasant and enjoyable, but nothing really came up to playing with Guy's.

I must not digress further, but get on with the game versus London Irish. A glance at the team will show that in addition to the above three men, J. E. Davies and C. H. Medlock were compulsorily resting. This let in G. D. Eccles, F. Harrington, and C. L. Curle, while C. H. Laver came into the pack.

Guy's started well and seemed determined to at once go ahead and show that practically a reserve back division could play with determination. Rook, playing scrum half, scored soon after play began. It was a good try (Anthony missed the extra points), but when Liebson got over, he kicked an excellent goal. Another try should have been registered just after, but Nicholls held on too long.

With the score at these points, ends were changed. Nicholls, following up well, bustled Quin, his opposing three-quarter, kicked over, and fell on the ball for a try. No extra points were added. The next interesting piece of play was a fine burst through by Curle; his pass to Davies was not made use of, though a try looked certain. The visitors now had a turn, and pressed home an attack, initiated and carried through by the Irish forwards, MacGowan scoring and goaling as well. This was their only success. Whitworth and Stranack both got tries before the end, but in the absence of an expert place kick neither was converted. Final score: Guy's (1 goal 3 tries) 17 points; Irish (1 goal) 5 points. Team:—

GUY'S.—A. H. Harkness (back); G. D. Eccles, E. C. Nicholls, C. L. Curle, F. Harrington (three-quarters); C. F. Broome, A. F. Rook (halves); O. Parry-Jones, W. S. Stranack, A. L. Anthony, A. S. Liebson, A. B. Danby, A. W. A. Davies, H. P. Whitworth, C. H. Laver (forwards).

REMARKS.—The forwards played a thoroughly good game. The only improvement would be a little more shove in the back row. Rook at the scrum base was excellent; Broome all that was possible; the three-quarters were alright individually; Eccles' determination very marked, but he wants rather safer hands; Nicholls has not quite rid himself of hanging on too long; Curle's failure is his final pass; he clears away nicely, but his pass is not well delivered, on the wing he will do better still; Harrington had little to do; Harkness makes as always a very reliable full back.

GUY'S v. LONDON WELSH.

This match played on the hospital ground at Honor Oak ended in defeat. It is some time since the London Welsh beat Guy's on their own playing pitch. This time, there is no good mincing matters, the hospital team did not deserve to win. They played badly, and not until the game had gone two-thirds of the time did they really show what they were capable of. The Welsh started short, and before they got their full team gained their first try, several forwards going over the line from a throw out of touch. The visitors were on the attack and often dangerous for some time after this. Many of the Guy's men were going too high; it is a pity more of the forwards do not go low for a tackle; it would prevent many opposing attacks from developing. Before twenty minutes of the game had elapsed the Welshmen got another try, which Richards (of Bart.'s) converted neatly. Guy's now by a series of forward rushes got to the other end, when Medlock kicked a fine penalty goal. But the visitors went further ahead just afterwards, as a good round of passing in which all the Welsh three-quarters participated, ending in Tucker going over for a try very wide out.

About midway through the latter half of the game Guy's got really going, the forwards getting on to the ball and exhibiting plenty of dash. The side were soon going for the line. First, Stranack was excellently placed, but overran the ball; Medlock then failed to convert three or four penalties, but the greatest chance was when Kennedy got away. Instead of passing, he ran on and was collared. A fine passing movement sent Rook away, but nothing came of it. Leigh (of King's) one of the best Welsh three-quarters, dribbled down to Guy's 25, and a hot attack was only warded off by Broome saving in the nick of time. The drop-out brought relief. The remaining play was chiefly in neutral territory. Final score: Guy's (1 penalty goal) 3 points; London Welsh (1 goal 2 tries) 11 points. Team:—

GUY'S.—H. Millett (back); A. L. Stokes, E. C. Nicholls, A. H. Harkness, A. F. Rook (three-quarters); A. F. Broome, C. H. Medlock (halves); R. S. Kennedy, W. S. Stranack, O. Parry-Jones, A. L. Anthony, A. B. Danby, A. S. Liebson, A. W. A. Davies, H. P. Whitworth (forwards).

REMARKS.—The reverse sustained will only make the side more determined to do better things. The forwards were chiefly to blame. They absolutely lacked the "devil and go" one has so long associated with the hospital pack, but the last twenty minutes made up for a lot. Broome, except for one mistake played very pluckily and well; Millett splendidly. The three-quarters never got going properly, and saw, as a matter of fact, but little of the ball. C. H. Medlock was suffering from leg injury, but he turned out all the same when a substitute was difficult to find. Parry-Jones was far from well, but did his utmost. While such good sportsmanship is shown Guy's have not much to fear.

GUY'S v. HARLEQUINS.

Before a record crowd, many of whom were unable to find a place on the stand, the Harlequins defeated the Hospital on November 23rd. It was a case of defeat, but not disgrace. The forwards played a very fine game indeed, and the backs, from whom Millett and Medlock stood out by themselves, played as well as they could and tackled right manfully to the very end. In two instances a little more thoroughness in the "tackle" and a more hearty "going for the man" would probably have prevented a couple of tries.

There have been few games at Honor Oak Park where so little touch-finding has been indulged in, and for this reason play was always bright and open. The ball passed up and down the field at a great rate, and the whole game reflected credit on winners and losers alike.

It was early in the game when Hare got an unconverted try; Millett just got to him, but not in time to prevent the try. Gradually Guy's forwards got going; their plan was to keep the ball away from the fast Harlequin backs. After dribbling it well down to the Harlequin 25, F. M. Stoop, taking full advantage of his pace, got right to the other

end before he was pulled up. The ball was scrummaged, and Stoop secured and dodged through. R. O. C. Ward goaled. Guy's had another reverse soon after. Splendidly their forwards got to the other end again, but this time Brougham picked up; running very fast he reached Millett and presented a perfect pass for Poulton to accept and score.

After the interval, Medlock, who has never played better, broke right through, and, running straight and hard, he scored a very popular try. Just after, Stranack got clear, and, passing to Anthony, sent him over for a try too wide out for Millett to goal. With fifteen minutes to go, play was most exciting, but the visitors' pace and accuracy in handling was undoubtedly very fine, and it brought them three more unconverted tries, H. E. Ward, R. W. Poulton, and E. Hare being the scorers. Still, the forwards stuck to it, and great credit is due to Parry-Jones and Stranack for their display and to the other six who backed them up so ably. A magnificent kick by Medlock, a free kick being awarded Guy's on the stroke of time from the touchline practically, hit the crossbar, and unluckily rebounded into play. Final sore: Harlequins (1 goal 4 tries) 20 points; Guy's (2 tries) 6 points. Team:—

GUY'S.—H. Millett (back); F. Tooth, C. L. Curle, A. H. Harkness, E. C. Nicholls (three-quarters); C. H. Medlock, A. F. Rook (halves); W. S. Stranack, O. Parry-Jones, A. L. Anthony, A. S. Liebson, A. W. A. Davies, A. B. Danby, C. H. Laver, E. F. Llarena (forwards).

REMARKS.—The XV. are to be heartily congratulated. Up against a very stiff problem, minus their captain who was not quite fit, they faced their task and went for it. That they did not win was not their fault. Their opponents were simply too fast behind the scrum.

GUY'S v. UNITED SERVICES.

Several First XV. players found it impossible to make the journey to Portsmouth on November 21st for this match. It was not, therefore, altogether surprising that the Services won by a fair margin. It is a matter for congratulation the defeat was not larger, and those men who represented the hospital may feel assured that their splendid efforts to uphold the prestige of Guy's is much appreciated. The Officers, up to this match, had been almost invariably unsuccessful, so that a score of 2 goals and 4 tries (22 points) to 2 goals and 1 penalty goal (13 points) in their favour came as a welcome change to them.

The first half ended with the Services leading by 14 to 3. Lieutenants Sypet, G. S. Brown, H. Gardner, and Campbell all getting tries, but only one was converted, while the score for Guy's was opened by Medlock landing a lovely penalty goal, almost from the half-way line. Medlock and Tooth were the Hospital try getters during the latter half of the game, and Medlock was successful with both place kicks. The home team got over the Guy's line twice more, Lieutenants Hammick and Sturgess getting tries, one of which was added to. The Guy's tackling was not quite so thorough as usual, but this remark by no means applies to Millett, who performed yeoman service. Team:—

GUY'S.—H. Millett (back); F. Tooth, A. H. Harkness, C. L. Curle, H. W. Evans (three-quarters); C. H. Medlock, A. F. G. Guinness (halves); O. Parry-Jones, A. L. Anthony, A. S. Liebson, A. B. Danby, H. A. Thompson, E. F. Llarena, C. H. Laver, H. P. Whitworth (forwards).

Association Football.

The Soccer side this year will train into a useful side. H. V. Stebbings, who has been capped for London, is a most valuable addition to the forward line. D. A. Bevis will also complete a useful line of half-backs. After having drawn a bye in the Surrey Senior Cup, Merton beat us 3—0 in the Second Round. Unfortunately the team had not played together for two weeks, as the games against Lancing College and Beckenham were scratched. Results of games:—Emeriti, won, 7—0; Old Felstedians, won, 3—0; Merton, lost, 0—3; Wellingboro' Masters, lost, 3—4; Bank of England, won, 1—0.

GUY'S v. WELLINGBORO' MASTERS.

Unfortunately S. W. Bevis missed the train, but we were able to obtain a substitute from the School. The Masters pressed almost at once. After a breakaway, MacManus had hard luck in hitting the post from a half-volley. The Masters continued to press, and scored through their left wing. They added three more goals before halftime, but Coxon reduced the lead from a breakaway.

In the second half Guy's had much the better of the game and penned the home side in their own half. H. V. Stebbings scored twice for Guy's, who just failed to equalise. The Masters won a good game by 4 goals to 3.

GUY'S v. BANK OF ENGLAND.

Guy's had not a full team out, H. C. Rook and J. M. Stebbings being away. Guy's pressed at once, but could not score. The play was kept on the left wing for quite half the first half, and, following a centre, Coxon shot over. The opposing centre forward broke through, but Biddle just saved in time. The sides crossed over at half time with no score.

Early in the second half Coxon broke through and spoilt a good chance by waiting too long. After much pressure by Guy's H. V. Stebbings scored. The same player shortly afterwards hit the bar very hard with a good shot. Team:—

GUY'S.—H. M. Gray (goal); K. J. T. Keer, F. J. Biddle (backs); D. A. Bevis, J. Kyle, L. Gill (halves); E. Lindsay, H. V. Stebbings, A. C. M. Coxon, D. MacManus, S. W. Bevis (forwards).

Golf.

SEMI-FINAL OF GOLF CUP TIES.

GUY'S v. LONDON (Holders).

This match took place at Sundridge Park on Wednesday, November 20th, and ended in a draw after a very close game of 4¼ points all.

Guy's were very unfortunate in not winning, as the result depended on scoring on the byes, which is, as a general rule, a most unsatisfactory arrangement. Scores:—

GUY'S.	Match.	Bye.
J. M. Jarvie	0	0
R. A. Fawcus (4 & 3)	1	0
L. A. Graham (6 & 4)	1	0
F. G. L. Scott (5 & 4)	1	0
F. A. Knott (5 & 4)	1	0
O. Morgan	0	0
R. Curle	0	0
R. Creasy	0	¼
		4¼

LONDON.	Match.	Bye.
L. C. Somervell (1 up)	1	0
H. H. Mathias	0	¼
J. S. Jobson	0	0
W. S. Herman	0	0
A. S. Herman	0	0
A. G. Hardwick (1 up)	1	0
J. Deignton (2 up)	1	0
W. G. Oliver (4 & 3)	1	0
		4¼

SEMI-FINAL OF GOLF CUP TIES.—REPLAYED.

GUY'S v. LONDON (Holders).

This match took place at Sundridge Park on Wednesday, November 27th, and resulted in a victory for Guy's by 5¼ to 3¼ points.

Guy's thus meet St. Thomas's in the final with every prospect of regaining the cup which London won last year.

The match will be played at Purley Downs on Wednesday, December 11th. Scores :—

GUY'S.	Match.	Bye.
J. M. Jarvie	0	0
L. A. Graham (4 & 3)	1	0
R. A. Fawcus	0	0
F. G. L. Scott (7 & 5)	1	0
R. Curle (4 & 2)	1	0
O. Morgan	0	0
R. Creasy (5 & 3)	1	¼
G. Nootт (6 & 4)	1	0
		5¼

LONDON.	Match.	Bye.
L. C. Somervell (1 up)	1	0
H. H. Mathias	0	0
W. S. Herman (4 & 2)	1	0
A. S. Herman	0	0
J. Deignton	0	0
A. G. Hardwick (1 up)	1	0
W. G. Oliver	0	0
A. B. Dummere	0	¼
		3¼

Hockey.

GUY'S v. HERTFORD COLLEGE, OXFORD.

This match was played on the Croydon Hockey Ground, on Wednesday, 27th November. A very enjoyable game resulted in a win for the College by 5 goals to 4. Guy's were, unfortunately, very short of their regular first team men, notable absentees being: L. A. Graham, E. P. Poulton, J. H. Parry, J. F. Venables, and O. G. Morgan. However, the reserve men played very energetically, and the game was consequently fast throughout. Guy's started off with a rush which ended in their centre shooting through. Not very long afterwards Jessop ran through and scored again with a good shot. The College got together better after this and scored twice before half-time, making the scores level on crossing over. On resuming, the College pressed for a long time and added three good goals. Guy's rallied towards the end, and played very strenuously. Several corners were forced against the College, but they were fruitless. However, Vincent-Browne scored a good goal eventually, and a little later scored again, after a clever piece of work by Jackson. After this, Guy's pressed right up to the end, and were rather unlucky in failing to score. Vincent-Browne hit the cross-bar with a very clever shot. Time came, however, without any further score. For Guy's, Vincent-Browne was the best forward, and he worked tremendously hard; his wing man, Purdom, was practically a passenger, as he was not fit yet after his accident. Jackson got through a tremendous amount of work, as did the other halves. Coxon was good in goal, and cannot be blamed for those he let through. Team :—

GUY'S.—A. C. M. Coxon (goal); R. C. Matson, and G. D. Gripper (backs); L. Waghorne, F. Jackson, and C. R. Smith (halves); H. L. Peregrine, A. Jessop, C. E. Wilkinson, R. Vincent-Browne, and H. N. Purdom (forwards).

GUY'S v. KING'S COLLEGE.

Played on Saturday, November 30th, at Raynes Park. Guy's were again badly represented, but were far too strong for their opponents. Jessop started the scoring with a shot which the goalkeeper ought to have stopped. King's immediately equalised through their centre. After this Guy's had all the better of the game, and led at half-time by 4–1, goals being scored by Peregrine, Jessop, and Thomas, in the order named.

The second half was a repetition of the first, with Guy's pressing practically all the time. Goals were added by Peregrine (2) and Matson (3), in that order, leaving Guy's winners by 9–1. The ground was bumpy, and, with the weakness of our opponents added, prevented any show of good form. Matson was seen in a new rôle at centre forward and distinguished himself by shooting three good goals. It was disappointing to find our opponents so weakly represented. Team :—

GUY'S.—G. D. Gripper, W. B. Burnside and G. L. Cutts (backs); L. Waghorne, F. Jackson, and C. R. Smith (halves); C. Thomas, H. L. Peregrine, R. C. Matson, A. Jessop, R. Vincent-Browne (forwards).

It was very disappointing for Guy's to again have to turn out with such an unrepresentative side. Graham, Poulton, Venables, Morgan, and Parry were notable absentees.

Births.

HINDE.—On November 10th, at Gurney Court, Magdalen Street, Norwich, the wife of E. B. Hinde, M.B. B.C., of a son.

MALLESON.—On November 27th, at 30, Thurlow Road, Hampstead, to Mr. and Mrs. Herbert Malleson, a daughter.

PINCHING.—On November 28th, at Frampton-on-Severn, Stonehouse, Glos., the wife of W. G. Pinching, M.R.C.S., L.R.C.P., of a son (still born).

PRICE.—On November 23rd, at The Croft, Orpington, Kent, to Charles E. Price, M.R.C.S., L.R.C.P., and Mrs. Price, a son.

SMALLEY.—On November 17th, at Suva, Fiji Islands, the wife of James Thornton Smalley, M.R.C.S., L.R.C.P., of a son.

Deaths.

MAYSTON.—On November 21st, at "Bloxydge," Park Crescent, Erith, Elizabeth Martha, wife of Robert W. Mayston, M.D. Lond., aged 36 years.

SADLER.—On November 17th, at De Castro Terrace, Canterbury, Henry George Sadler, J.P., M.R.C.S., L.S.A., aged 75 years.

Ed.—J. A. R.

With the Compliments
of the
Season
1912
Christmas
R.J.W.

GUY'S HOSPITAL GAZETTE.

VOL. XXVI., No. 639.] DECEMBER 21, 1912. [SIXPENCE.

CONTENTS.

	PAGE.
Passim	509–511
Change of Address	511
William Saunders	512
Gazette Special Pathologist	512
Pupils' Physical Society	513–515
Papers by Guy's Men	515
Some Notes on Growths. By E. L. Kennaway	515–517
Pass List	517
Guy's Hospital Dental Society	518–521
Another Incident in the Life of an I.M.S. Man	521–522
The Treatment of Certain Cases of Œdema. Clinical Lecture by George Newton Pitt...	523–527
London Bridge and the Borough in the Eighteenth Century (*continued*)	528–530
Correspondence	530–532
Guy's Hospital Musical Society	532–533
Appointments	533
Reviews	534
Sport	534–536

Passim.

THE advent of Christmas not infrequently stimulates the editorial pen to display an outburst of seasonable activity. On this occasion, however, in spite of the welcome stimulus, we shall endeavour to be brief. Concerning Christmas in hospital much has already been written in other places, and at other times; much more undoubtedly could be written but experience is, we consider, so infinitely more valuable than words that we prefer merely to snatch the opportunity of congratulating on their good fortune those who are about to taste of the experience of a Christmas at Guy's. Whether it be their first experience, or serve but to recall memories of similar occasions, we know that it must prove, beyond description, enjoyable to them. The fact that they are enabled temporarily, but definitely, to contribute their mite towards the sum of human happiness is not the least factor in the causation of their enjoyment.

To all our readers we would extend our best wishes for a Happy Christmas and a Prosperous New Year.

The programme of events in a most eventful week will be found below:—

Wed. 25.	Niggers go round the wards.
	The Landon Christmas Tea for 670 children.
Thur. 26.	Martha Christmas Tree.
	Esther Concert.
	Residents' Theatricals, 8.30 p.m.
Fri. 27.	Job Concert.
	Cornelius Concert.
	Naaman Concert.
	Stephen Concert.
	Queen Concert.
	Ruth Concert.
	Residents' Theatricals, 8.30 p.m.
Sat. 28.	Bright Concert.
	Charity Christmas Tree.
	Dorcas Concert.
	Addison Concert.
	Residents' Theatricals, 8.30 p.m.
Mon. 30.	Patience and Samaritan Concert.
	Nurses' Entertainment, 8 p.m.
Tues. 31.	Astley Cooper Concert.
	Bonfire, 12 midnight.

A LETTER from the prompter of the central theme in our last Passim will be found in this number. While grateful to him for his appreciation of our attempt at exposition of views which we share with him, we cannot agree with him that collected evidence and data would be superfluous. On the contrary, we would urge him to set to work at once and gather as much, and as accurate, information on the subject of "Suicides," their treatment, and their after-histories, as may be possible. It will be a difficult task, but only by some such means will his hope that the question "may receive equal consideration in administrative quarters" be realised.

The vast question which he raises of the interaction of mental and physical factors in disease we cannot discuss here, but with his suggestion, that it should receive more adequate discussion, we are entirely in accord.

We sincerely regret that in our last issue we omitted to record the occasion of the visit of Mr. Howard Mummery to Guy's, on November 21st, for the purpose of delivering a lecture on some very important work of his own before the members of the Dental School. Mr. Mummery is the most eminent of present-day dental histologists, and his recent investigations demonstrating the distribution of nerves in the dentine have established beyond a doubt a point which has baffled histologists for many years, and have at the same time upset certain theories which had hitherto held the field. Mr. Mummery's kindness in coming to lecture at Guy's was rewarded by a packed and appreciative audience (upwards of 170 men being present in the Physiological Theatre), and by a fitting ovation both before and after the lecture. Some beautiful lantern slides and drawings, and some of the most perfect sections ever cut, were shown in support of his views, and he kindly spent over an hour, after the conclusion of his lecture, in demonstration and explanation of his work.

We must further apologise for having allowed the lecture to go to press disfigured by several serious misprints. The error was the outcome of a misunderstanding which arose in regard to the correction of proofs. The majority of misprints occurred in connection with proper names—thus, Hunter should have read Hopson; Sir James Salter, Mr. James Salter; Freud, Löwits; Reichsdal, Raschkow; Vigat, Weil. We have been able to reprint a small number of Gazettes with corrections, so that it will be possible for Mr. Mummery (to whom our deepest apologies are due), the Dental Journals, and the Wills' Library to acquire more accurate copies.

The rapid growth of the Dental School, and the very special nature of their work and their interests must be held, in part, responsible for these mistakes. It is obviously difficult for an editor to keep in touch with all their doings, and his failure to do so must be to some extent excusable, unless he have the full co-operation of the representatives of the School. We believe the Dental Society appoints a Dental Correspondent, and would suggest that it become his permanent function to keep the Gazette supplied with Dental news, and, perhaps, in co-operation with the Dental representative on the Gazette Committee to render assistance in proof-correcting, should the necessity arise.

On Friday, December 13th, the Physical Society held a meeting, which must have been one of the most interesting and important in the whole of its annals. The subject discussed was "The Treatment of Consumption," and the information forthcoming was of such a nature as to stir even the most pessimistic and unimaginative of inquirers. Dr. Marcus Paterson, whose vigour and enthusiasm alone always compel belief, and whose extraordinary work and convincing proofs win supporters everywhere, gave an account of his auto-inoculation theories, which he backed up by lantern demonstrations of his methods and reference to his results. Dr. Shaw, Mr. Fremantle, Dr. Eyre, and Sir James Goodhart also addressed the meeting from their various view-points, and some interesting discussion followed.

A fuller account of the speeches appears on another page. Those who were present will not quickly forget this meeting, from which they cannot have failed to gather much valuable fruit. We feel that it should mark a turning-point in regard to the teaching concerning tuberculosis at Guy's. That it has demonstrated the need for a revision of views on the subject all must admit. It has also made manifest the serious lack of special investigation and instruction in regard to the disease existing in the large teaching hospitals at the present time.

In our Correspondence Column will be found a letter asking for financial support for a scheme for the institution of a permanent memorial to the late Dr. Wade. That such a memorial should exist is most desirable, and we feel sure that there will be no difficulty in obtaining the amount requisite for the purpose. Our correspondents could scarcely, we think, have devised a more fitting method of commemorating Dr. Wade's work at Guy's. The establishment in the Medical School, in which he carried out the

greater part of his valuable teaching and research, of his own library should commend itself to everyone as an eminently suitable plan. To Mrs. Wade, for her extremely generous offer to part with the library, the Hospital and School must be always indebted, and the insertion of appropriate inscriptions into the books will assuredly be the first care of those who are in charge of the scheme.

From January 6th to the 16th, 1913, inclusive, there will be held in London a Post-Graduate Course on "The Feeding and Care of Infants," under the auspices of the National Association for the Prevention of Infant Mortality and for the Welfare of Infancy. The course is intended for those members of the Medical Profession who are desirous of acquiring information regarding the modern methods of preventive work among infants and young children. The fee is £1 1s. Health Visitors, Sanitary Inspectors, and other persons interested will be admitted to certain of the lectures, on payment of a fee of 5s. for the course. An extremely comprehensive and interesting programme has been arranged, and the names of the authorities responsible for the lectures and demonstrations are sufficient guarantee of its excellence. Dr. Cameron will hold Clinics and deliver Lectures at Guy's on January 8th, 10th, and 15th. The objects of the course are beyond praise, and it should prove of the utmost value to all who are interested in one of the most important of modern medical crusades. The names of those desiring to attend should be sent, if possible, not later than January 1st, 1913, to the Hon. Secretary, Dr. Janet E. Clayton, 18, Craven Terrace, Lancaster Gate, W., to whom also fees are payable.

Sister Out-Patients has raised questions of supreme importance in her letter. We are in entire sympathy with her plea for the better consideration of the women's question in general and in particular, and also with her timely suggestions as to practicable means of improvement in the immediate sphere of the hospital.

The terrible neglect and indifference which men have displayed in regard to all vital problems affecting the other sex, as evidenced by allusions in her letter and by recent disclosures which have led to attempted palliative legislation, constitute, without doubt, the most invincible argument in favour of the enfranchisement of women. Her appeal for an enquiry into the inadequacy of payment in those departments of the Hospital, in which the work has of late been almost doubled, is equally worthy of endorsement.

We regret that we are unable to devote further space to these questions, but hope to be able to consider them in a future issue.

Mr. F. E. Fremantle has been selected as prospective Unionist Candidate for Stockport. Stockport and Mr. Fremantle both have our hearty congratulations. His political friends, and opponents alike, will agree that it is highly desirable that the medical profession, and, perhaps, especially that part of the profession which is connected with preventive medicine, should be adequately represented in Parliament.

J. A. R.

Change of Address.

T. S. Allen, M.R.C.S., L.R.C.P., from 231, Devonshire Road, Forest Hill, S.E., to the General Hospital, Croydon.

Colonel B. B. Connolly, C.B., M.D., B.C., A.M.S., from 20, Wickham Road, St. John's, S.E., to "Erwood," Southey Road, Worthing.

F. A. Dick, M.B., B.S., Guy's Hospital to 41, Lee Road, Blackheath, S.E.

A. Cradock Fry, M.A., M.B., B.C., from Oxford House, Wokingham, to High Street, Stone, Staffs. Tel. 25.

F. L. Furze, L.D.S., from Montpelier, The Beeches, Carshalton, to 3, The Promenade, Sutton.

A. Pickett, L.D.S., D.M.D. Harvard, 24, Cornfield Road to 7, Victoria Place, Eastbourne.

Depy. Surgn. Genl. W. W. Pryn, R.N., from R.N. Hospital, Chatham, to R.N. Hospital, Gibraltar.

J. H. Roberts, B.A., M.R.C.S., L.R.C.P., from 241, High Street, Poole, to 70, S. Barnabas Road, Cambridge.

H. Chapple, M.C., F.R.C.S., from 23, Southwark Bridge Road, to 26, St. Thomas's Street, S.E. Tel. unchanged (Hop 3244).

(The Editor will be very glad to receive a postcard with notes of any change of address.)

William Saunders.

As the subject of our Christmas picture we have chosen the portrait of William Saunders. The reproduction is taken from an oil painting which hangs in the dining-hall of the Superintendent's house. The following account of the life of one of our earliest and most renowned physicians is taken from Wilks and Bettany's History of Guy's Hospital:—

The first physician of real eminence in his profession who became attached to Guy's, after Jurin, was William Saunders, a Scotchman, who brought to London the results of the teaching of William Cullen. He was the son of a physician in Banff, Dr. James Saunders, and was born in Banff in the year 1743. Choosing the medical profession, he naturally went to Edinburgh University, whose medical school was then the only one in Great Britain worthy of consideration. He was not only a pupil, but also a friend of William Cullen, whose "Nosology" so long held the field in the classification of diseases.

Saunders graduated M.D. at Edinburgh in 1765, his exercise for the degree being upon antimony. Coming to London, Dr. Saunders was no doubt commended to Dr. (afterwards Sir) George Baker by his chemical knowledge, and Baker availed himself of the young physician's assistance in the chemical investigations connected with his enquiry into Devonshire colic. He began to lecture on chemistry and pharmacy in Covent Garden, and is said to have made £1,000 a year by his lectures. He published a "Syllabus of Lectures on Chemistry and Pharmacy," in 1766, extending to twenty-four pages. . . . Dr. Saunders also issued a "Catalogue of the Materia Medica" for the use of his students. . . .

In 1770, largely through Baker's and Lord Mansfield's influence, he was elected physician to Guy's Hospital, where he had only Drs. Hinckley and Thomlinson as his seniors. . . . Saunders' advent seems to have been the signal for novel arrangements at Guy's. He obtained permission to lecture, or announced his intention of lecturing, on the theory and practice of medicine at Guy's, the lectures being, by special arrangement, open to all medical pupils of both Guy's and St. Thomas's. . . . Dr. Saunders was one of the early advocates of the value of red Peruvian bark as compared with the pale form in common use in agues, fevers, etc. . . . He treated many cases successfully with red cinchona, and had so many confirmations of his views from other doctors that he was led to publish "Observations on the Superior efficacy of the Red Peruvian Bark in the Cure of Fever, interspersed with Occasional Remarks on the Treatment of other Diseases by the same Remedy." . . . The appropriateness of the publication, and the demand for it, was further shown by its translation into French, German, and Latin.

Dr. Saunders's next work, "A Treatise on the Structure and Diseases of the Liver" (1793), being the substance of the Gulstonian Lectures delivered by him at the College of Physicians in the previous year, is naturally of less value, owing to the extreme ignorance of that time as to the true physiology of the liver. . . . In the therapeutical part of his subject Dr. Saunders is a great advocate of the drinking of warm water. . . . The last work of Dr. Saunders that we must notice is his "Treatise on the Chemical History and Medical Powers of some of the most celebrated Mineral Waters, with Practical Remarks on the Aqueous Regimen." . . .

He became a Fellow of the Royal Societies of London and of Edinburgh, and of the Society of Antiquaries. He was specially admitted a Fellow of the College of Physicians in 1790. . . . He was Censor during four years, Gulstonian Lecturer in 1792, and Harveian Orator in 1796. He was appointed Physician-Extraordinary to the Prince Regent in 1807, and retired to Enfield in 1814. There he died on May 29th, 1817.

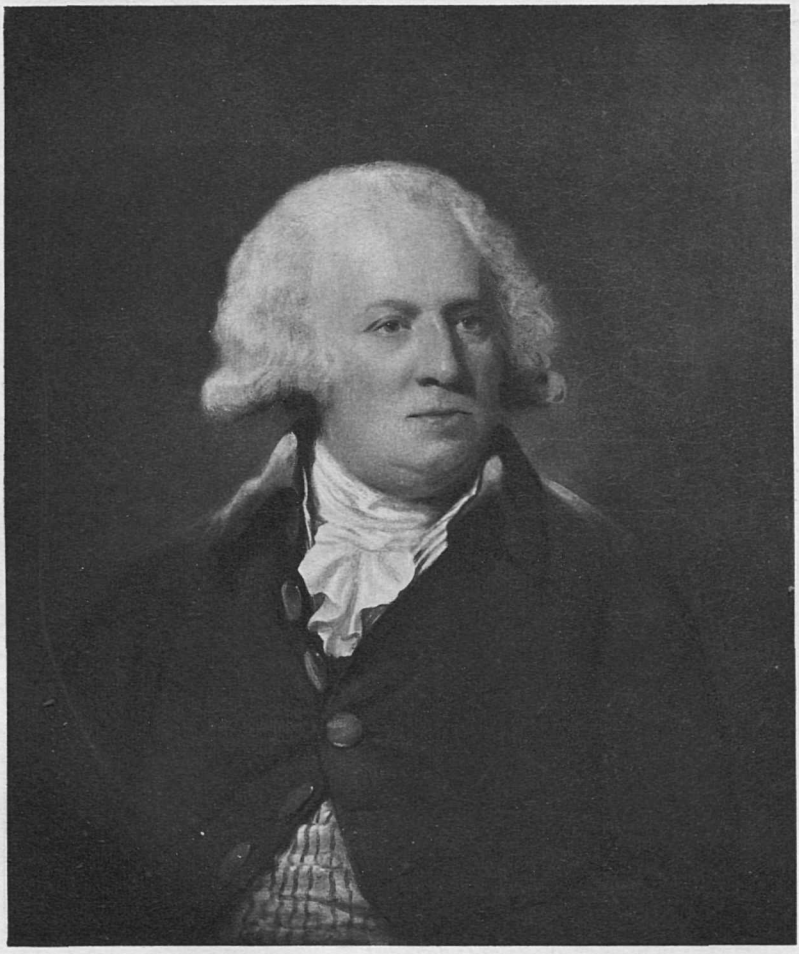
An important matter in which Dr. Saunders was concerned after leaving Guy's, was the Foundation of the Royal Medical and Chirurgical Society. . . . Among the members of the First Council were: Dr. Saunders, President; Charles Rochemont Aikin, Secretary; Dr. William Babington, Vice-President; Astley Cooper, Vice-President; Dr. James Curry; Dr. Alexander Marcet, Foreign Secretary. . . . Two features of originality have been lately brought to light in Saunders's views. Dr. A. E. Garrod, in his work on "Rheumatism," recently published, says:—"Although it has only recently received much attention, the miasmatic theory is at least as old as the present century. Dr. William Saunders, of London, writing to Haygarth in the year 1809, said: 'With respect to your inquiries on the subject of acute rheumatics, I am assured by much experience, and accurate observation, that with all its inflammatory symptoms, it is an ague in disguise.'"

Of Saunders's personal character little mention is made. Sir Astley Cooper said of him, "He was a most entertaining lecturer, but superficial person, with a considerable share of genius . . ." How far the description was justified we cannot say.

Gazette Special Pathologist.

J. N. W., WEST END LANE.—The centrifugalised deposit of this urine is small in amount, and is chiefly composed of mucin and squamous cells from the lower urinary tract, associated with many calcium oxalate crystals of small size and one or two leucocytes. Pus, blood, tube casts, renal cells, or further abnormalities are not detected.

PATHOLOGIST.



William Saunders, M.D.

Born 1743. *Died 1817.*

Pupils' Physical Society.

THE Fourth Meeting of the Session was held on December 13th in the College Smoking Room. Mr. E. G. Schlesinger was in the chair, and over a hundred members were present. The minutes of the previous meeting having been read and confirmed, the chairman called on Dr. Marcus Paterson to open a discussion on

"THE TREATMENT OF CONSUMPTION."

Dr. Marcus Paterson contrasted the modern teaching on chronic pulmonary tuberculosis with that of his student days. He was brought up in the belief that tuberculosis was a local disease of the lung; nowadays it is recognised that it is a general disease, and it is classed as such in the text-books. Diphtheria is not a disease of the throat, nor carbuncle a skin disease. From this it follows, of course, that in chronic pulmonary tuberculosis symptoms are as valuable as signs in diagnosis, and far more valuable in treatment. A patient with very few signs may be seriously ill, whilst, on the other hand, patients with cavitation may be in quite good health.

The theory of auto-inoculation is based on the belief that graduated doses of toxins will increase the immunising power of the patient's serum as measured by the opsonic index. Therefore, if one can control and gradually increase the output of toxins from a focus of disease into the blood, the patient's immunity will be greatly increased. An excessive output of toxins, or, as it is called, excessive auto-inoculation, is shown by an exacerbation of the symptoms of the disease. It is ushered in by a pyrexial attack accompanied with influenzal symptoms, a general feeling of illness, headaches, and pains in the back. Pleurisy is not an uncommon sign of excessive auto-inoculation. An effusion is not a bad sign, as it at any rate immobilises the lung. There are three classes of patients. Firstly, those who have not got control over their auto-inoculation, and therefore present all the signs of active disease, and have recurring attacks of pyrexia and general malaise. The patient usually describes his condition in these attacks as feeling "rotten." These patients should be completely immobilised in bed, and treated exactly like typhoid cases until the temperature has subsided. The oral temperature is just as valuable as the rectal. The temperature usually subsides in about three days, when the strict nursing may be very gradually relaxed. The sputum in these attacks is very frequently excessive in amount, but gradually subsides during treatment. It is not a bad sign, since the condition in the lung resembles an abscess cavity, and is all the better for free drainage. The surgeon is not disappointed by a free discharge of pus from an empyema. The importance of the quantity and character of sputum is not sufficiently realised. "We ought to look more into the sputum pot than we do." The patient's own feelings are very important, and they learn very quickly to recognise any excessive auto-inoculation by the feeling of "rottenness" which at once supervenes. The appetite should also be carefully considered. The wasting in tuberculosis is not due to any inherent peculiarity in the disease, but is directly caused by the loss of appetite.

The second class consists of those patients who have their auto-inoculation fully under control. These patients feel perfectly well, and yet may have extensive signs of disease in their lungs. The third class consists of those cases which are making no headway under ordinary treatment, and whose natural processes need some help to increase their immunisation, either by graduated auto-inoculations or by means of tuberculin.

The objects of treatment should be: Firstly, to bring the patient back to his normal weight. There is no necessity to over-feed a patient once he has regained his normal weight and appetite, and no benefit accrues from doing so. Of course, during the pyrexial attacks they need special feeding, but not at other times. Secondly, to raise the specific resistance to the tubercle bacillus so that the patient can resume his normal work without fear of a "breakdown," that is, an excessive auto-inoculation.

Hæmoptysis is not a sign of a breakdown: it is merely an incident in the local condition of the lung. It is an interesting observation that hæmoptysis does not, as a rule, occur during work, but more frequently in the middle of the night. It is as well to realise that the presence of tubercle bacilli in the sputum does not necessarily mean that there is still any active disease. The condition may be a parallel to the "typhoid carriers."

At the close of his speech Dr. Paterson showed some very interesting slides illustrating the various stages of work by which a patient's resistance is gradually raised. First we see the patient immobilised in bed during a pyrexial attack; next he is allowed to wash himself; and then he is allowed to get up for a gradually increasing number of hours every day. The next stage shows him gradually extending the length of his daily walk until he can manage six miles without ill effect. He is then put to work. At first he carries small baskets of earth, then larger ones; next he does light work about the garden, and is promoted to digging with small forks. The final stage shows him doing ordinary pick and shovel work for five and a half hours a day. When this stage is reached he remains at it for three weeks at least, and if he has no ill effects he is discharged. Excessive auto-inoculation occurring at any stage is treated

by complete rest in bed until all signs have disappeared. The patient then begins again at the stage at which he left off, and is not made to begin again.

Dr. Lauriston Shaw prefaced and epitomised his remarks by putting them in the form of a resolution: "That the most important factor in the early detection, the speedy control, and permanent arrest of consumption is the provision of constant domiciliary supervision of all suspected and established cases by a sympathetic and trusted personal medical attendant possessing a sound knowledge of the first indications, common course, usual complications, and general treatment of the disease, and working under conditions which will encourage him to make prompt use of all available facilities for further help in diagnosis, and of any special method of treatment, institutional or otherwise, in every case in which such help in diagnosis or in special methods of treatment are likely to be beneficial." He laid stress on the importance to the patient of having a trusted and personal doctor, and contrasted the affection felt for the general practitioner with the suspicious attitude of the patient towards medical officials. Dr. Moxon once said, "It is the chief function of the medical attendant to protect his patient against the State." It is of the greatest possible importance that the treatment of tuberculosis should not be taken out of the hands of the general practitioner. Any special assistance in diagnosis and treatment should be given, not in opposition to, but in co-operation with the practitioner.

Mr. Fremantle pointed out that there was no clear line of demarcation between measures for treatment and measures for prevention of disease. The most powerful weapon in preventive medicine is the efficient treatment of existing cases of infective disease. It is to be noted that the death-rate from tuberculosis has steadily declined in the last forty years without any regular specific efforts having been made to stamp out the disease. Metchnikoff suggests that this may be due to a process of natural immunisation of the community by the sick—a process which has been much facilitated by the great improvement of communications. Perhaps, also, some selective breeding has taken place owing to the spread of education, and to the natural liability of tuberculous stocks to die out. It is improbable that the great increase in all directions of personal and general hygiene has contributed much to this decrease.

Under the Insurance Act it is impossible, at least at present, to provide accommodation for all tuberculous patients in sanatoria. Two alternatives present themselves, either the formation of dispensaries or domiciliary treatment. Dispensary treatment has the great disadvantage that no check can be kept upon auto-inoculation, and excessive inoculations are liable to occur from the long journeys necessary in rural areas. There can, therefore, be no scientific treatment through dispensaries, except, perhaps, in congested urban areas; and dispensaries should not be established in rural areas, except in the last event. Domiciliary treatment is likely to be of far more value, since it enables the general practitioner and the tuberculosis officer to meet in consultation in the patient's own home, and puts them in a position to oversee and direct his treatment, his habits, his whole way of life, more thoroughly and more scientifically, through his wife and children, the nurse and the neighbours, who are the essential nidus of his case. It is, of course, of the utmost importance that the tuberculosis officer should work in direct co-operation with the practitioner as well as the Medical Officer of Health.

Although the advanced cases of tuberculosis have only a minor interest for the specialist in treatment, it must not be forgotten that they form a very grave danger to the public health. It is an unfortunate fact that the prominence which the lay press has given of late years to tuberculosis has resulted in much hardship to sufferers and ostracism by their neighbours; and isolation and treatment in an open-air shelter at home are therefore difficult. The Insurance Act, moreover, prevents the use of Poor-Law Infirmaries for this purpose; and popular prejudice would probably prevent the use of isolation hospitals. Nor will there ever be power, let us hope, to isolate moribund patients from their families against their will; nor will that will be generally forthcoming. The advanced case is, perhaps, the greatest crux in the reduction of tuberculosis.

Dr. Eyre did not approve of the promiscuous use of tuberculin. Autogenous vaccination is far more valuable than any other method can possibly be. Unfortunately, to prepare an autogenous tuberculin takes several weeks at least and therefore in most cases this method has not much practical application. The same effects can, however, be obtained by the graduated exercises used with so much success by Dr. Paterson. This method is a practical application of Wright's theory of the value of graduated inoculations. The subjective symptoms complained of by the patient are, as Dr. Paterson pointed out, extremely valuable and may, with a little education, be used as very sensitive indications of the patient's condition.

In considering the value of any special line of treatment we must never lose sight of the fact that the natural tendency of chronic pulmonary tuberculosis is towards cure. This is evidenced by the numerous cases of healed pulmonary tuberculosis seen in the post-mortem room.

There are three varieties of Tuberculin: Old Tuberculin—containing only the soluble exo-toxins—this is very valuable as an aid to diagnosis; *Tuberculin R.*—containing only endo-toxins—this variety is useful in treatment as an anti-bacillary method and is the only one which should be used nowadays; Bacillary Emulsions—containing both exo- and endo-toxins—they are dangerous and have been shown to contain live organisms.

Sir James Goodhart described himself as palæolithic as compared with the previous speakers. He agreed

fully with Dr. Shaw's resolution, but did not endorse Dr. Fremantle's view that hygiene had not been a potent factor in the decrease and prevention of tuberculosis. He was not quite convinced of the superiority of graduated inoculation to that which occurs normally, and felt that in considering tuberculosis we are in the position of climbers who have not yet reached that summit from which a clear and comprehensive view can be obtained.

Mr. Sandison vividly compared Guy's with the Brompton Chest Hospital, and gave us a description of the steps and indications for the use of tuberculin. He is greatly impressed with the value of the temperature as an indication of the patient's progress in the acute stages of the disease.

Dr. Cameron was very pessimistic, and seemed to be chiefly impressed with the extra-ordinary want of unanimity among those versed in the use of tuberculin. They do not agree as to the doses, intervals, varieties, stages, or methods to be used.

Dr. Robert Govan told us that in his experience there was no friction, but, on the other hand, co-operation between the tuberculin dispensaries and the local practitioners. He does not agree with the charge that the dispensaries use tuberculin indiscriminately. It ought to be possible to establish isolation hospitals for advanced cases of chronic pulmonary tuberculosis.

Dr. P. S. Price thinks as far as his experience goes that tuberculin treatment for out-patients is very valuable.

Dr. Paterson, in his reply, congratulated Guy's on having at last, after many years, some representatives among the residents at Brompton. He agreed with the previous speakers, that co-operation between the tuberculosis officers and the general practitioners was essential. It is a pity that the great teaching hospitals do not pay more attention to teaching on the early cases of tuberculosis. They are the difficult cases.

The Chairman proposed a hearty vote of thanks to Dr. Paterson and the other speakers who had contributed to the discussion, which was carried with acclamation.

The meeting adjourned at 10.30 p.m.

Papers by Guy's Men.

Major R. Tilbury Brown, R.A.M.C.: The Training and Working of an Indian Sanitary Section.—*Journal of R.A.M.C.*, December, 1912.

R. Clement Lucas, F.R.C.S.: A Case of Complete Eradication of Extensive Recurrent Cancer Affecting both Breasts and Axillæ. Death 15 years later from Heart Disease and Dropsy at the age of 82 years.—*Lancet*, December 14th, 1912.

E. P. Minett, M.D., D.P.H., D.T.M. & H., and another: Drinking Water Supplies.—*Journal of Royal Agricultural Society*, vol. ii., Series 3, No. 2.

Some Notes on Growth.

BY E. L. KENNAWAY.

THE subject of growth is to a large extent neglected in the ordinary text-books of anatomy and physiology. This is the reason, though it is no adequate excuse, for the publication of the following scattered notes and suggestions.

Growth in the higher animals might be described as the series of changes whereby the fertilised ovum attains the structure of an adult member of the species and maintains that structure during the remainder of its life. The description of this development in its earlier phases is the business of the embryologist, and this description might be made fairly complete by the pursuit of existing methods of examination. But the mechanism whereby the whole series of changes is initiated and guided is a physiological matter, and the nature of this mechanism will not be known before the nature of life is known.

It is difficult to devise any satisfactory classification of the changes which constitute growth. However, one might, perhaps, attempt to arrange these changes as follows: There is (1) the formation of new organs by differentiation of the cells formed by segmentation of the ovum; (2) the enlargement and maintenance of these organs without further differentiation; (3) the establishment of new connections between different parts, which process is seen especially in the development of the vascular and nervous systems. One may now consider a few points about each of these forms of growth.

1. *Growth with differentiation.*—The development of the cerebellum affords an instance of this. The nervous system is developed from a tube, the neural tube, lined by a single layer of epithelial cells. In the adult the superior and inferior medullary vela of the brain retain this primitive structure, with the addition of some nerve fibres from elsewhere. The vela, of course, occupy a larger area than do the corresponding areas of the neural tube, that is to say, there has been growth without differentiation. But over a sharply localised area between the two vela, in the region where the impulses come in from the semi-circular canals, an enormous development of nerve cells from this same epithelium occurs, forming the cerebellum, some of these nerve cells being more complex in form than any others in the body.

2. *Growth without differentiation.*—If it were possible to dissect the thigh of a child at the age of five years, and to dissect it again at the age of ten years, one would presumably find but little change in the soft parts except a difference in size. This is growth without differentiation.

Now suppose that in the interval of five years the child's femur had become 2 inches longer. Everything

else in the thigh must have become approximately 2 inches longer in the same time. How has this co-ordination of growth in different tissues been brought about? It is difficult to believe that this co-ordination is affected by any means more complex than the tension exerted on the soft parts by the elongation of the femur. A good example of growth in response to tension is seen in the enormous extension of the skull bones and scalp which occurs in hydrocephalus. From this point of view the bones of the limbs, in virtue of their rigidity, are the pace-makers of growth without differentiation, and any ductless gland which controls the growth of the skeleton controls the growth of the soft parts. However, it is obvious that this explanation will apply only to enlargement parallel to the long axis of the bone. For some reason a certain amount of growth in length is accompanied by a certain amount of growth in girth, that is, the tissues grow to scale.

We seem to have very little information about growth without differentiation. An exact study of the post-embryonic growth of the sheaths of nerve-fibres has been made in the case of the sciatic nerve of the frog.* The average distance between two adjacent nodes of Ranvier increases proportionately to the increase in length of the leg, the number of nodes thus remaining approximately constant. Since there is only one nucleus to each internode, the cells of the primitive sheath elongate to scale without cell-division.

3. *The establishment of New Connections.*—This is seen in its most obvious form in the growth of axons in the embryo. The growth of an axon may be regarded as taking place in two stages, namely, before and after the axon reaches its destination. The first stage in the frog embryo has been watched under the microscope by Ross Harrison.† Under the conditions of his experiments the axons grow at the rate of 20μ, or about three times the diameter of a red corpuscle, in twenty-five minutes, which is about one inch in three weeks. He showed that the cells of the primitive sheath were not required for this growth; this result one would expect from the development of the central nervous system. The exact method by which the axon grows is not known. It can hardly be pushed out from the cell body since it is not a rigid structure. The new material might possibly be taken up by the axon at its extremity from the surrounding lymph, but the enlargement of this extremity, which is well shown in Ross Harrison's figures, suggests a lowering of surface tension at this point followed by an outflow of material from the cell body into the axon.

The growing axon is supposed to reach the organ with which it is to be connected under the guidance of some chemotactic substance emanating from that organ. This certainly seems the most likely explanation, though a very large number of these substances would be required for the development of the adult peripheral nervous system. If the chemotactic substance lowered the surface tension of the tip of the axon, and if this substance were present in increasing concentration as its source was approached, the axon if supplied with material must necessarily grow towards this source, that is, to its proper destination. Possibly the pollen tube of a flowering plant grows towards the ovum in the same way.

Several possibilities suggest themselves as to the mode of growth of an axon in the second stage, after it is fixed at both ends, but we seem to have no information on this point.

The process of growth can be looked at from many points of view, and we may now consider a few more of the almost innumerable aspects of the subject.

The influence of hormones upon growth.—It is of some interest to consider, even in the light of very inadequate knowledge, the changes which occur in the breaking of the voice at puberty. Certain cells in the testis produce a hormone, which is carried to every cell in the body. The hormone acts upon certain of these cells, among others upon the cells of the thyroid cartilage, which must therefore differ chemically at this time from the other cartilage cells of the body. A "chemical messenger," or hormone is required to produce this change, since cartilage cells have no nervous connections.

Perhaps the anatomists will tell us whether the thyroid cartilage at puberty enlarges uniformly, or chiefly parallel to the long axis of the vocal cords. In the latter case the hormone must cause the cells not merely to divide, but to divide at right angles to the long axis of the vocal cords.

Changes in the relative rates of growth of different parts.—When the elongation of the vertebral column outstrips that of the spinal cord, the cauda equina is produced. Similar changes in relative rate of growth produce alterations in the aspect of the body as a whole. Thus, a baby, with its big head and short legs, is not a miniature adult. Again, everyone is familiar with the small body and long legs of a foal. The body must be small to allow of parturition; the legs are stilts which serve to raise the new-born animal to the level of its mother's mammary gland.

The adjustment of growth in different parts.—The whole of growth is a process of adjustment, but there is one instance of this aspect of growth which is perhaps worth special mention. If parallel rays of light are to be focussed on the retina, it is clear that a very exact adjustment of the growth of the lens to the growth of the whole eyeball is required. It is not surprising that this co-ordination of growth should

*Boycott, Journal of Physiology, xxx., p. 370, 1904.

†An account of Ross Harrison's experiments, with figures, is given by Mott, *British Medical Journal*, November 13th, 1909, p. 1389.

sometimes fail, with production of long or short sight. Since the lens has no nervous connections, its growth must be influenced from outside either by tension or by substances in the aqueous humour.

The thorax of the new-born child fits its contents, but in the course of subsequent growth the thorax becomes larger than its contents, and thus the negative intra-thoracic pressure, which is of such importance for the circulation of blood and lymph, is produced. Why does not the growth of the lungs keep pace with that of the ribs, as does the growth of the soft parts in the thigh with that of the femur? The lung contains a considerable amount of elastic fibres, which are non-cellular structures, and therefore do not respond to tension, as do living cells, by multiplication. This is, perhaps, one function of fibrous tissue in the body; it serves to take the strain off cells which would respond to that strain by multiplication, thereby producing an undesirable slackening of the tissue.

Of course, the lung of the child does grow; its growth follows that of the thorax, but lags behind. One might suppose that the cells of the lung divide and lay down more fibres when the elastic tissue is stretched to a certain point; the cells are affected by the stretching of the elastic tissue, not directly by the growth of the bones which is producing that stretching. By this means the intra-pleural tension would be maintained at an approximately constant level throughout the period of growth.

In the same way, the elastic tissue in the walls of arteries may prevent multiplication of the cells in response to the blood pressure. Again, a healthy skin is a tight fit for the body, and this tightness, which assists the return of venous blood, may depend upon the protection of the cells of the epidermis by the fibrous tissue of the dermis.

Discontinuous growth.—A stag makes a fresh pair of larger and more complex antlers for each successive fighting season. The new antlers are allowed to die, are used for fighting, and are then cast off. A living bone, covered by periosteum and skin, would not be a suitable structure for use as a weapon. Conan Doyle states that in the later stages of a prize-fight without gloves it is almost as painful to give a blow as to receive one. It is known that the production of each successive pair of antlers is dependent upon the testis, but it is extremely difficult to imagine the exact mechanism by which the increase in size and number of branches is produced. A similar mode of development is seen in many species of birds, in which the adult plumage is not attained until after one or more moults.

Recurrent growth.—The full development of the stag's antler is reached by a series of acts of growth, each one of which is interrupted by the removal of the whole structure produced. In other cases an organ undergoes a recurrent growth and retrogression, but the results of the periods of growth show no progressive development. This condition is seen in the expulsive uterine muscle which is produced afresh for each pregnancy, in the mammary gland, and in the male generative organs of animals like the hedgehog,* which shows a marked sexual cycle.

The capacity for growth in adult life.—This is seen in the maintenance of the epidermis and of the red corpuscles, and in the processes of repair which follow an injury. A good instance of this latter class is the regeneration of nerve fibres. Elliot, in a paper on "The Innervation of the Bladder and Urethra,"† has recorded some remarkable instances of what appears to be axon generation, as distinct from regeneration, in the adult. This paper describes an investigation which is a masterpiece of experimental skill and of careful reasoning with a broad biological outlook, though the specialised character of its title has perhaps restricted the number of its readers.

Elliot found that some weeks after section of one pelvic nerve in the cat, the other pelvic nerve had acquired motor control over the whole bladder, whereas its normal effect is limited strictly to its own side. In a still more remarkable case, after section of both pelvic nerves, the hypogastric nerves produced a strong contraction of the whole bladder identical with that seen on excitation of the intact pelvic nerves, although the normal effect of the hypogastrics is chiefly inhibitory. Elliot discusses the various possible explanations of these phenomena, and made experiments to test them, and he comes to the conclusion that these results must be due to branching of uninjured preganglionic fibres, perhaps in response to chemotactic influences arising from the isolated pelvic visceral nerve cells, which he describes pathetically as "widowed." These preganglionic fibres would, in the first case, be those of the intact pelvic visceral nerve; in the second, those of the inferior splanchnics which pass through the inferior mesenteric ganglia into the hypogastric nerves.

*Marshall, Journal of Physiology, xliii., p. 247, 1911.
†Elliot, Journal of Physiology, xxxv., p. 387, 1907.

Pass List.

University of Cambridge.

Degree M.D. conferred.—H. B. Carlill.
Degree M.B. conferred.—A. H. Crook.
Degree M.C. conferred.—A. H. Crook.

Royal College of Surgeons of England.

FINAL FELLOWSHIP.

Attwatter, H. L., M.B., B.C.
Bromley, L., M.B., B.C.
O'Brien, A. B., M.D.
Saner, J. G., M.B., B.C.
Trethowan, W. H., M.B., B.S.

University of Oxford.

FINAL M.B.

R. A. Fawcus, B.A.
R. C. Ozanne, B.A.
R. Reynell, B.A., M.R.C.S., L.R.C.P.

Guy's Hospital Dental Society.

A MEETING of the Dental Society was held on Friday, November 22nd, at 4.15 in Class-room No. 2, when Mr. J. Lewin Payne took the chair. The minutes of the last meeting having been read and confirmed, the chairman called for casual communications.

Mr. Lawrence showed a very interesting skiagraph demonstrating the cause of an obscure case of neuralgia. The photograph depicted the apex of a root of a 6-year old molar which, becoming exostosed, had given rise to persistent pain. On its removal the symptoms ceased, and the patient rapidly got well.

Mr. Morrish showed a model of the upper denture of a man 45 years of age which was of interest in so far as both the temporary lateral and canine on one side were still retained, while on the other side the permanent canine had only partially erupted.

Mr. Rycroft brought forward the mandible of an American Indian which was singularly large and well developed.

Mr. Guy Neely showed models of an edentulous child of 5½ years old, as well as a model of two supernumerary teeth situated in the mid-line.

Mr. Viljoen presented a very fine specimen of gemmination of an upper second and a third molar tooth.

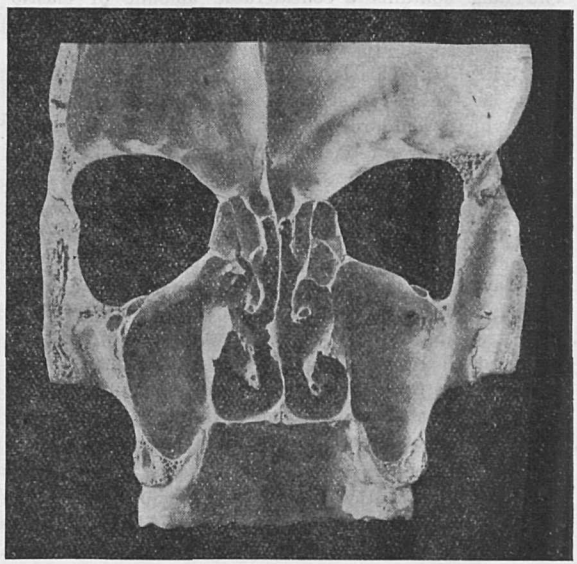
The chairman then called upon Mr. B. Underwood to read his paper on Diseases of the Antrum. The paper was enthusiastically received by a packed house of over 70 members, and is printed in full below. Messrs. Lewin Payne, Medlock, Bulleid, Thomas, and others joined in the discussion which followed. The thanks of the Society are due to Mr. Lewin Payne for kindly taking the chair in the absence of the president.

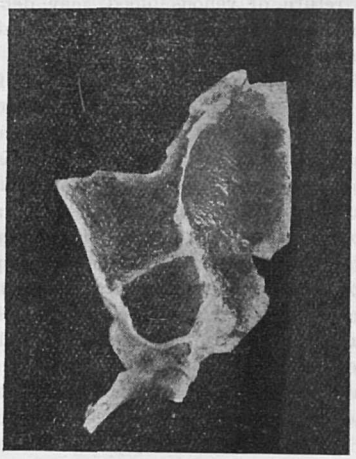
SOME DENTAL ASPECTS OF EMPYEMA OF THE MAXILLARY SINUS.

By BAYFORD UNDERWOOD, M.B., B.S. Lond., L.R.C.P., M.R.C.S. Eng.

MR. CHAIRMAN AND GENTLEMEN,—Let me relieve your minds at once by saying that I am not going to attempt to discuss in detail all the possible pathological conditions which may affect the antrum of Highmore. If I did, I suppose we should be here at least a week, which would be much more than either we desire or deserve. There is, however, one condition arising in the antrum which is of extreme importance to us as dental surgeons, namely, suppurative inflammation of the maxillary sinus, or antral empyema. The importance of this condition to us, of course, is that we may frequently be called upon to diagnose the disease, and also in some cases to assist in its treatment.

And in this connection let me emphasise one point which, to my mind, is of vital importance to the patient, and incidentally to the reputation of the dentist. No dental surgeon should ever, under any circumstances undertake the treatment of antral empyema, except in consultation with a rhinologist. The qualifications of the dentist, to my mind, make no difference whatever in this case. He may be a Fellow of every College of Surgeons in the United Kingdom; still, if his daily work involves purely dental surgery, then it is his obvious duty to refrain from wandering into domains of operative surgery with the technique of which he has not been made familiar by constant practice. But that is by the way.





Before dealing with the diagnosis of antral empyema, which is the main purpose of this paper, may I say just a word about a few anatomical points which may be unfamiliar to some of you?

Our knowledge of the normal anatomy of the maxillary sinus has recently undergone considerable

change, consequent upon some work done by my father about two years ago. His conclusions having been accepted by the Royal Anatomical Society of Great Britain, have now passed into current teaching, and are quite likely to meet us at the final examination at the Royal College of Surgeons.

First of all, what is the maxillary sinus for? In the adult it serves two chief purposes, which it shares with the other accessory sinuses. First, these sinuses serve to lighten the skull; and secondly, they increase considerably our power of making a noise. This latter point has been brought out very forcibly by a comparison of the condition of the sinuses in the anthropoid apes.

In childhood the function of the antrum is quite different.

The molar teeth, and in some cases the premolars also, as they develop, are contained in bony crypts or compartments situated in a space which will later on be represented by the antrum. These crypts may be compared to boxes, which are very little larger than the tooth-germs they contain. The crypts do not normally communicate with one another, except for the passage of vessels and nerves. As the teeth erupt, the walls of these crypts normally disappear, leaving behind them the space we call the maxillary sinus. In some cases, however, absorption of the bony wall separating one crypt from another may fail to take place; a permanent septum thus remains, dividing the antrum into compartments, imperfect above.

These septa are of extreme importance from the point of view of diagnosis and treatment of antral empyema, and it is, therefore, necessary to say a word or two about them.

1. They are *never* quite complete, that is to say, there is always a communication between the main cavity and the part shut off by the septum. This communication may be quite minute.

2. They *always* occur between two teeth. The septum most commonly present appears between the third and second molars. Rather less commonly, a septum may be found between the first and second premolars. Septa further forward are rare.

3. They are covered with mucous membrane which is continuous with that lining the antral walls.

Certain other septa may be found in the antrum, quite different in origin from those above mentioned. The situation of these has no reference whatever to the position of the teeth, nor have they any connection with dental development. On examination, these septa will be found to be traversed by small bony canals through which pass vessels and nerves.

I shall hope to allude to both kinds of septum again later on.

The normal maxillary sinus may be roughly described as "boat-shaped." The antral floor is raised anteriorly and posteriorly, and also laterally, the deepest point being thus situated at about the region of the second molar.

And now, having cleared the ground in what I am afraid has been a somewhat lengthy prologue, we can pass on to the real subject of this paper, namely, suppuration in the maxillary sinus.

As is the case with almost every surgical disease, antral empyema may be acute or chronic. The symptoms do not differ in essentials to any great extent, but there is a marked difference in the rapidity with which the two types of disease respond to treatment.

Antral empyema is an infective disease, that is to say, it is micro-organic in origin. I do not propose to discuss the bacteriology of the condition. Suffice it to say that our old friend streptococcus pyogenes is quite a common factor in the disease.

Infection may spread to the antrum from various sources. For our especial purposes we may classify these modes of infection as "dental" and "non-dental." Opinions are much divided as regards the comparative frequency of the two classes. So on that question I cannot pretend to lay down the law. As far as my own personal experience goes, I think the majority of antral empyemata which I have seen have arisen from dental causes.

The most common dental causes are, of course, suppurative periodontitis, and suppurative pulpitis. The third molar is the tooth most frequently responsible, the frequency decreasing as you go forward.

The non-dental causes may be briefly summed up in a sentence: "Any suppurative condition in the neighbourhood," such as pharyngitis, laryngitis, or tonsillitis. I have never heard of either a diphtheritic or scarlatinal empyema of the antrum, but I imagine this is quite a possible, or even probable, complication of these diseases. Catarrhal inflammation of the sinus is a frequent accompaniment of measles, and it would not surprise me to find the catarrh passing on into suppuration. In a similar way, influenza may be responsible. Perhaps light may be thrown on these points in subsequent discussion.

Infection may also spread from any of the other accessory sinuses. This is a very important cause, and in this connection it must be borne in mind that the nose and all the accessory sinuses are lined by one continuous layer of mucous membrane, which fact explains the ease with which infection may spread from one sinus to another.

The symptoms and signs of the disease vary considerably in degree in different cases. Some patients appear to suffer little or no discomfort, though their maxillary antrum be full of pus, while in other cases marked symptoms occur.

The main reason, of course, which prevails upon the average patient to seek advice is pain.

Pain in antral disease varies greatly in degree, and also in character. Firstly, it may be of the kind commonly known as "toothache," that is to say, pain

referred to the region of a particular tooth. These cases are mostly of dental origin, the pain being referred to the tooth from which the mischief has arisen, and due quite as much to the dental as to the antral disease. In other cases the pain is neuralgic in type, that is to say, it may be felt all over the cutaneous area supplied by the fifth nerve, while at particular points it is more severe. Wherever a branch of the nerve passes through a bony notch or foramen, the pain is liable to be exaggerated.

In this connection it is well to mention that the supra-orbital notch is a frequent site of severe pain in antral inflammation, and must not be thought to be pathognomonic of frontal sinus involvement. In other cases pain may be absent altogether.

Unilateral nasal discharge is, perhaps, the most important symptom of antral empyema. In chronic cases this sign is almost always present, while it is quite a common feature of acute cases also. The discharge may show itself in two ways. It may pass forward, in which case the patient notices it upon his handkerchief; or backward, when it is swallowed; an unpleasant taste and odour in the mouth may then be detected, as a rule.

Among the physical signs, may I mention first one which I myself have observed in several cases? I have not seen or heard it described anywhere, and it is quite possible that where I have seen it, it has not had anything to do with the condition. But I certainly have noticed that the skin over the region of the antrum has been distinctly flushed on the side of the lesion. It is a point I want to follow up, and I hope for some information on it from some of you later on.

Definite signs of distension of the cavity may sometimes be elicited on careful examination, more often in chronic than in acute cases. A tender swelling may be detected, pressing inward in the nose, or forward in the canine fossa.

Transillumination is an important physical sign, but may be very misleading. A definite difference between the two sides is, of course, very suggestive, but must not be regarded as a certain sign. I have seen no less than three antra punctured through the nose on the same morning on the evidence obtained by transillumination, and in none of these cases was pus obtained. On the other hand, if both antra transmit light well, the odds are they do not contain pus.

An X-ray photograph is often of great value in determining the nature of the condition. These skiagrams are by no means easy to read, and the greatest experience is necessary to determine the relative position of parts.

Intranasal puncture of the antrum is a very valuable operation, serving as it does both as an aid to diagnosis and as a means of treatment. It can be readily performed under cocaine analgesia. This operation, however simple it may sound, should never, of course, be attempted by the dentist. An interesting instance of one of the little accidents which may occur happened only a week or so ago. As it was necessary to extract a tooth in connection with the treatment of an antral empyema, it was decided to puncture the antrum through the nose under the same anæsthetic. Gas and oxygen were given. The tooth was a right upper second molar with an all-gold crown on it. The gold crown came off first, as soon as the forceps touched it. The remains of the crown of the tooth followed at the second attempt. Finally, the three roots were extracted, fortunately all together. In the few seconds which remained to him the rhinologist made a valiant attempt to puncture the antrum, but his trocar pierced the bone a little too far forward, with the result that instead of evacuating the pus from the antrum, he admitted air into the subcutaneous tissues; and alas! the patient was obliged to go and have tea with her fiancé with a face considerably swollen on one side.

It will be seen that in a case where pain is absent or only slight in amount, and the pus is discharged backward and swallowed, there may be very little in the patient's story to suggest the presence of pus in the antrum. It is essential, therefore, never to lose sight of the possibility of this condition being present. It is far better to diagnose antral empyema in fifty cases where it is not present than to fail to discover it in one case.

Actual instances are, I think, of more interest than mere talk, so I will venture to quote one more. The patient, a girl of about five and twenty, came to me in the spring of this year. She said that as she was passing through London, and did not feel quite comfortable, she thought she had better look in. When I asked for a little more detailed information, she said she had had a feeling of discomfort on the right side of her face for a few days, and wondered whether it had anything to do with the right upper second molar. She had not experienced anything definite enough to call pain. The tooth was dead, and contained a large distal amalgam stopping. It was slightly loose, but not tender to pressure. The skin of the right cheek was flushed, and I suppose it was that which suggested antral disease to my mind. I enquired about nasal discharge. She thought she had noticed a funny taste in her mouth, but no appreciable discharge showed itself on her handkerchief. There was no definite swelling to be made out in the nose, or in the canine fossa.

I transilluminated her, and there appeared to be a slight opacity on the right side. I took her round to a rhinologist, who, in addition to the signs I had elicited, found on examination a bead of pus on the posterior end of the inferior turbinate bone. This seemed conclusive enough. I extracted the tooth, and the next day the antrum was punctured and

washed out through the nose, a quantity of offensive pus being evacuated from it. After repeating this treatment three times at intervals of two days, the fluid returned was quite sweet. The patient has had no further trouble. I have mentioned this case as showing how very little assistance may be obtainable from the patient's own story. The most likely mistake to be made in diagnosis, therefore, is to miss the condition altogther. The only way to guard against such an occurrence is to keep the possibility of antral disease always in one's mind.

It is not likely that antral empyema will be mistaken for some other lesion, especially if the signs be marked. Unilateral nasal discharge, which is the most reliable symptom, may be due also to frontal sinus suppuration. When the frontal sinus is affected there is usually some tenderness to pressure above the orbit; it may also be possible to detect the discharge issuing from the opening of the infundibulum. An X-ray photograph will, in many of these cases, clinch the diagnosis.

In suppurative inflammation of ethmoidal or sphenoidal sinuses, unilateral nasal discharge may occur, but these conditions are not so likely to find their way into our consulting rooms. And even if they do so, we need not be ashamed if we refer them to a rhinologist as probable antral cases. Indeed, in most cases of sphenoidal and ethmoidal inflammation, the antrum is involved as well. An X-ray photograph would be of considerable value in such a case. From the position of their openings it will be clear that pus coming from the ethmoidal or sphenoidal sinuses will usually pass backward.

Before we leave the subject of nasal discharge, let me mention the fact that unilateral nasal discharge *in a child* is almost invariably due to the presence of a foreign body in the nose.

I do not propose to inflict upon you more than a word or two about treatment. In cases of dental origin the offending tooth must, of course, always be extracted. And this brings me to the question of drainage through the tooth socket. This method of treatment is utterly and completely bad. The sepsis which must accompany it is sufficient reason for condemning it out of hand. Nor is the drainage obtained by this means at all adequate. In acute cases, simple intranasal puncture performed three or four times may cure the condition. In most chronic cases, and in some acute ones, more drastic measures are required. The Caldwell-Luc operation is the one most frequently performed. The antrum is opened through the canine fossa; a complete view of the cavity is thus obtained, and the whole can be thoroughly explored and cleansed. The presence of a septum can be detected, and the septum broken down. In this way pus hidden behind it can be evacuated, which the intranasal trocar would not have been likely to reach. When septa of the second class described above are broken down the nerves passing along them are necessarily torn. This probably accounts for some of the pain, which is a frequent sequela of this operation.

I am afraid, sir, that I have inflicted a very lengthy paper upon you. But even so, I have only been able to touch the fringe of the subject. I must express my gratitude to you for your forbearance in refraining from moving the closure long ago.

Another Incident in the Life of an I.M.S. Man.

A CASE FOR DIAGNOSIS.
From *The Indian Medical Gazette.*

SIR,—The following case may be of sufficient interest to your readers, from a medico-legal aspect, to warrant insertion in your columns.

In the Penal Settlement of Port Blair there is a system whereby male and female convicts may, after a certain number of years, and if their conduct has been good, marry and live a "self-supporting" life in one of the numerous villages.

One such marriage occurred on June 6th, 1911. The union, however, did not last long, for in November of the same year the husband was sent to hospital for syphilis, and the woman was returned to the Female Jail for safe custody. She was admitted on November 10th, and stated that she was at that time about three months pregnant.

This information she vouchsafed to several of the jail convicts and convict officials, and in consequence succeeded in evading all hard tasks.

Owing to my absence on leave at the time she escaped the usual medical examination, but was seen by the Sub-Asst. Surgeon. During the ensuing months, however (from information subsequently elicited), her pregnancy appeared to progress normally as regards personal appearance and symptoms.

On May 10th, 1912, I had occasion to see the woman, and noticed her condition. On hearing that she was 8—9 months pregnant, I made an abdominal examination, and was struck by the fact that, though the abdomen appeared to be of a size and shape suitable to the supposed duration of the pregnancy, palpation showed no definite signs of enlargement of the uterus, and neither uterine nor fœtal sounds could be heard. There was, however, such marked flatulence that I decided to examine her again at my next visit, after administering suitable remedies for the condition.

Before I could do so, however, the following events took place:—

On the evening of the 12th, the woman retired to rest apparently quite well, and nothing was noticed by the convict "duffadarnis" on watch until the early morning, when the woman was seen to be sitting up in bed, and stated that she had had labour pains since about 4 a.m.

She was therefore helped to the hospital, and admitted to the labour ward about 5 a.m. The Sub-Assistant Surgeon and Matron were at once sent for, but before either of them could arrive, and at a moment when, as it happened, only a female ward coolie was in the room, the woman gave birth to the fœtus to be subsequently described. According to the ward coolie's statement the head presented at the vaginal orifice first, then the "hands" were born, and then the rest came away, bent up "like a ball of flesh."

The ward coolie thereupon went for assistance, and at that moment the Sub-Assistant Surgeon arrived (*i.e.*, about 5.30 a.m.). He at once recognised that the fœtus was to all intents and purposes a puppy, and, finding that it was not attached to the mother, enquired if the placenta had come away. Hearing that it had not, he waited a little, and then, as there was no sign of bleeding, took the fœtus to the Matron, and sent me a message informing me of the abnormal birth. When he left the ward there was no discharge of any kind from the vagina, nor was the bed soiled. On his return he found the abdomen flat and flaccid, and could not feel the uterus.

I examined the woman about 10 a.m., and found the abdomen as stated above. There was no pain on pressure, and the uterus could not be palpated. There was no discharge from the vagina, and no placenta had come away. The breasts showed no signs of lactation.

Vaginal examination showed the mucous membrane to be of the pinkish colour normal for the non-pregnant state, and the uterus was also of a normal non-pregnant shape, not more than three inches long. It was retroverted. The external os admitted one finger up, but the internal os was tightly closed, and resisted very firm pressure. There was no sanious discharge. I ordered diapers to be put on and carefully preserved. These showed a slight discolouration for three days, but this could be accounted for by the somewhat severe attempt to force the cervix open.

The *fœtus* exactly resembled a new-born puppy, which had had the whole of its skin, with the exception of its four paws, ears, and nose, carefully removed. It was about six inches long and not decomposed. The abdomen had been ruptured and the intestines were protruding. Only the stump of its tail was remaining, and there was no umbilical cord. The head was slightly damaged and bloodstained.

The above case suggests five solutions, and I leave it to your readers to decide upon the particular one they prefer:—

1. That the woman was pregnant by a man and that the result was the monster shown.

2. That she was pregnant by a dog, and that the result was the monster shown.

3. That she had been pregnant, had procured an abortion, and substituted the puppy fœtus for her own.

4. That she was not pregnant, but did the whole thing out of a desire to secure an easy time for herself and give the authorities trouble.

5. Hysteria, pure and simple.

None of these theories can be fully explained; the woman herself states that she believed she was pregnant by her husband, and can give no explanation of the untoward result.

Perhaps some of your readers can cite instances similar to theories 1 and 2. Personally I have never read of any authenticated case. The possibility of hysteria cannot be dismissed, but is contra-indicated by her general demeanour and the lack of any exciting cause. Also, it is doubtful if any hysteria in an Indian woman would take the form of introducing a carefully prepared puppy into her vagina to complete the illusion of pregnancy.

As regards 3, the symptoms in favour of pregnancy are more than counterbalanced by those against. There are several professional abortionists in the jail, so that there would be no difficulty from that point of view. Nor would it be difficult to procure a new-born puppy; the jail is bounded on two sides by the sea, and dogs are constantly entering the jail at low tide and seeking suitable homes for their offspring under the wooden barracks. Also, it is not uncommon for a dead puppy to be washed up by the incoming tide.

If the woman was pregnant, as she stated, by her husband, there appears to be no reason for procuring an abortion. If by another man, there might be some reason for desiring an abortion, but not for substituting a puppy for the fœtus.

On the whole, theory 4 seems the most likely, and the woman was certainly successful in securing six months' light labour for herself.

The importance of the case lies in its legal aspect. Should she be treated medically for hysteria, or be tried for a criminal offence? The difference to the woman is very marked: section 377, I.P.C., lays down a punishment of transportation for life or 10 years with or without fine for unnatural offence; section 315, I.P.C., gives 10 years with or without fine for criminal abortion; the Andaman and Nicobar Manual allows a maximum punishment of 2 years "Refractory dress" and "Haircropping," if the case is treated as a jail offence. But if it is all due to hysteria, "medical observation" is the worst that could happen to her.

The case has by this time been dealt with, but it may interest others to come to a conclusion for themselves; nor would the writer be averse to hearing the result of their cogitations.—I remain, yours, etc.,

F. A. BARKER, Capt. I.M.S.,
Medical Superintendent, Jails,
and Civil Surgeon.

Port Blair,
July 3rd, 1912.

The Treatment of Certain Cases of Œdema.

CLINICAL LECTURE BY GEORGE NEWTON PITT.

I WANT to bring before you this afternoon some points in connection with the treatment of certain cases of œdema. It is impossible to do more than touch upon a few of such cases, but before I do so it will be well to make a few remarks of a general character with regard to the conditions under which œdema is produced. The subject is still obscure, and although a good deal of work has been done upon it, on many points there still exists a divergence of opinion. We have to bear in mind that œdema is very closely associated with the capillary pressure rather than with the arterial or venous pressure, and that the permeability of the capillaries varies very much in different parts of the body. Capillaries in the extremities are not particularly permeable. The pressure in the legs can be increased as much as twelvefold in a healthy person without producing œdema. But if there should be any modification in the nutrition of the cells, a small alteration of pressure will allow the fluid to pass through in excess. The accumulation of fluid in the body may take place either in the blood vessels or in the tissues, and the condition in each case is by no means the same. There is one condition in which there is accumulation of fluid in the tissues alone, while in another condition there is considerable excess in the vessels.

The increase of capillary pressure will lead to an increased passage of fluid into the tissues. A very slight increase in the liver capillaries, for example, will make a difference—a much greater difference than in the case of the limb capillaries. This increased capillary pressure is very common in cardiac failure, in which, normally, the circulation is kept up with high arterial pressure and a venous pressure which is much below the arterial. The first effect of cardiac failure is to allow the fluid to accumulate in the veins and produce a venous pressure. That pressure will increase the output of the heart, and consequently will tend to raise the arterial pressure. Before the use of the sphygmomanometer, the general impression was that in cardiac failure the arterial pressure was below normal, and that to a considerable degree. This is found not to be the case, and as a result of the compensatory action consequent upon cardiac failure we get increased capillary pressure.

The next factor to bear in mind, and one which is, perhaps, of even greater importance, is the permeability of the capillaries. If we have waste products—toxic materials—whatever they may be, their tendency is to interfere with the nutrition of the cells and to lead to an increased amount of fluid in the tissues. Then comes the general hydræmia. The total amount of fluid in the body—a factor now regarded as much more important than formerly—does not depend wholly upon the circulation, but upon the tissues themselves. Professor Fisher, of Chicago, draws attention to the fact that the acidity of the tissues is an important factor in determining how much fluid shall accumulate in them.

The remaining factor is the interference with the passage of the tissue lymph out of the tissues. This may be due to defective absorption from the lymphatics, either through absence of muscular movement or blockage of the veins. Professor Fisher showed that if a ligature be tied on a frog's leg, and the leg immersed in distilled water, it distended with fluid, having at the end of twenty-four hours 25 per cent., and at the end of two or three days 80 per cent. more fluid than the corresponding limb. The result was due to a simple alteration in the nutrition of the leg. On the other hand, in a similar experiment in which, however, no one leg was ligatured, the artificially produced œdema was found to be general, and the change to be the same on both sides. The result is clearly to show that the accumulation of fluid depends upon the nature of the tissue. It has been found also that with exercise we get an accumulation of formic acid in the urine, and also with muscular exertion we get lactic acid. Therefore, if we have a defective oxidation by cutting off the blood supply, or if we interfere with the nutrition of the tissues, we obtain increased acidity. If salts to a certain amount are put in the water this accumulation of fluid can be retarded.

Many other experiments bear in the same direction. If, for example, we take some gelatine and inject a drop of formic acid, we shall find on exposing the gelatine to light that a wheal is raised which is very much greater where there is acid than where the gelatine contains no acid. The general conclusion of these experiments is that the accumulation of

fluid in the tissues depends very considerably upon the actual nature of the tissue itself, particularly upon its acidity, and that it is not solely a question of the circulation. I show you a photograph of a macerated fœtus distended with fluid in a manner which would not have taken place had the fœtus been alive.

Before discussing some interesting features in connection with the treatment of certain forms of œdema, I should like to refer a little more fully to the cases of cardiac œdema. Heart failure may result from the inability of the blood to pass from the auricle into the ventricle, or from the ventricle into the aorta. In the former case the tendency is to get œdema, and if there is pain it is referred to the auricular area. On the other hand, when it is difficult to get blood out of the ventricle into the aorta, anginal attacks are forthcoming, and no œdema. It is very curious that œdema is very rarely, if ever, obtained with mitral stenosis. With mitral incompetence, as the heart fails, œdema is common.

I want particularly to draw your attention to the cases of adherent pericardium. In the case of a young patient who has œdema without any particular cause being found to account for it—who has no valvular or renal disease—the probabilities are in favour of his œdema being due to adherent pericardium.

With regard to treatment in these cardiac cases, there is no doubt that digitalis is our main stand-by. It is quite immaterial what preparation of digitalis is used, provided that the preparation has been standardised, and that it is of efficient value. The reason why so many varieties of this diuretic were formerly recommended was due to the fact that in different seasons and places digitalis varies enormously. But if it is standardised on frogs it is quite immaterial what preparation is used. The usual fault in its administration is that not sufficient of it is given. In severe cases of œdema from one to two drachms of the tincture should be given during a day, and until about five drachms have been given altogether one is not likely to get much in the way of toxic effects. On reaching that limit one must consider whether it is wise to go further.

In most cases it is essential when the patient first comes in for treatment that he should have a purgative. The digitalis, while it will slow down the pulse in twenty-four hours, will not produce much effect on the urine until after forty-eight hours, and when the case is urgent it may be desirable to give it intravenously. Of the ordinary diuretics, squill and acetate of potash are useful, and 5 grs. of citrate of caffein will add to the value of the digitalis. Then there are the synthetic drugs, such as bromine, "diuretin," etc., which are irritants, but which, if the patient can take them, are efficient, and may be given in doses of from 5 to 10 grs. three times a day for two or three days. My own preference, however, is, on the whole, for theocin sod. acetate in doses of 2 or 3 grs., given, as a rule, for not more than two days. This will very often produce diffuse diuresis. In many cases such treatment will be found at first to be sufficient, and then sooner or later there may be another attack of cardiac failure, and the treatment is no longer effective. In such cases there arises the question of puncturing the legs or tapping the abdomen, etc. After drainage, the kidneys will often act well when the drugs have failed.

But I desire especially to call your attention to the extraordinary results which may be obtained by cutting off all food. It must be remembered that for as long as the patient is œdematous and has his tissues bathed with fluid, there is ample nourishment circulating, and it is simply the inefficiency of the cells in availing themselves of the food which is there already, associated with the acid condition, that is the cause of the trouble. There is no fear of the patient starving so long as he has the œdema. If, now, he is put entirely on water, or, having good kidneys, a little beef tea, which is not much more than water, may be added, it is astonishing with this sustenance for how long a time he may do well. If he must have something to eat, one or two wafer biscuits in a day may be given. I have had some cases which have gone on for as long as three weeks, and the patients, passing from a moribund condition, have gradually absorbed the nourishment required from the œdematous tissues, and have been enabled to get about again. Therefore, strict starvation for a period of several days, which period may, if everything is satisfactory, be prolonged to three weeks, is very much to be commended.

As an example of the value of this treatment I might mention the case of a man who had lived in the East for many years and had suffered frequently from attacks of malaria. He came home with degenerate kidneys and cardiac failure, and after many recurrent attacks at last got into a condition in which drugs

seemed to offer no benefit whatever. At length he was persuaded to cut off everything in the way of diet, and to confine himself to water. He continued this régime for three weeks, and as a consequence passed into a condition of comparative comfort and lived for many months afterwards. This was a case in which all the drugs seemed to have lost their efficiency, and in which a comparatively fair state of health was recovered by putting the patient solely upon water.

With renal cases one proceeds on much the same lines as I have indicated for cardiac cases. The renal cases include the œdemas associated with acute nephritis and lardaceous disease.

I wish now to draw your attention to some toxic conditions. In babies with chronic gastro-enteritis it is not infrequent to find an increasing œdema. Partly this is due, of course, to their defective nutrition, partly to their anæmia. But the question is also raised as to the relation which this œdema bears to the salt intake. If a large amount of water be taken, it does not follow that there are watery motions. The water is excreted by the kidneys, but whatever amount is taken it is not found to increase the fluidity of the fæces. If however, salt be taken it produces a great thirst without at first giving rise to any great diuretic effect. So far as an increased amount of water is taken, to that extent in a healthy person the urine is increased in amount, and the salt is not retained, but is excreted by the kidneys. The amount that people may take varies very much, perhaps from 7 to 12 grammes in a day, without in any way affecting the amount of moisture retained in the body.

When we are dealing with defective kidneys, however, the condition is quite different. You, gentlemen, will have noticed in the wards that in such cases an increased amount of salt involves an immediate increase in the weight of the patient. There is one case on record in which the administration of an equivalent of a teaspoonful of salt every day for seven days corresponded to an increase of about one pint of retained water. When in that case the salt was cut down, the additional weight and the œdema disappeared. The amount of water retained in the body with imperfect kidneys may be a very important factor, but Dr. Hugh (?) made a number of observations on these cases of œdema occurring in small infants, varying the amount of salt, and came to the conclusion that the œdema in these instances was not directly a mere question of salt retention, but that in all probability the nutrition of the capillaries was of much more importance in its causation. There is no doubt that the proper treatment of such œdemas is to restore the normal digestion and to improve the general nutrition.

A very interesting group of cases comes under the heading of Quincke's disease. These are cases in which patches of œdema may appear either on the face or limbs, are fugitive in nature, and may involve the mucous membrane. Some people no doubt are much more susceptible to these attacks than others, and although shell-fish and certain other forms of food may bring about the result in these susceptible people, it is ordinarily very difficult to trace it to any definite article of diet. Yet, the condition is due undoubtedly to the circulation of some toxic material, and in many cases the attacks are preceded by flatulence and intestinal disturbance, and not infrequently by diarrhœa. The trouble certainly bears some relation to urticaria, but in the latter there is a much more marked sensation of tingling. Patients may be found with whom the attacks are so frequent as to make life perfectly miserable, and no treatment is universally satisfactory. A dose of castor oil or calomel may be given, followed up with salol, beta-naphthol, or some intestinal antiseptic. In some cases one finds that calcium chloride or calcium lactate will do good. It has been suggested that the condition is due to defective coagubility of the blood, but this certainly applies only to a minority of cases. The condition is not without its extreme dangers, because when the œdema attacks the larynx it not infrequently proves fatal, and when it attacks the trachea or the bronchi it not infrequently produces severe asthmatic dyspnœa. In some cases where the intestines are involved, a tumour may be palpable which, on the abdomen being opened, proves to be due to several inches of œdematous intestine.

The next is a curious group of cases which are not referred to in the books, but are very troublesome to deal with. They occur usually in people between the ages of forty and fifty-five, and are characterised by the development of a general œdema without any obvious reason for it. The œdema may persist for many months, and ultimately the patient may get quite well. As an instance I may mention the case of a man, aged 52 years, who had always been very temperate and had enjoyed excellent

health. After a cold bath one winter's day he felt cold and cyanosed and generally miserable, and within forty-eight hours an œdema developed in his lower extremities lasting for several months, and sometimes, but not always, involving the arms. Practically no success was met with in treatment, but the condition ultimately disappeared with massage, and hot baths, and milk diet. In that case the heart and the urine were normal, and the patient lived for twenty years afterwards.

The condition is also met with in children, and it is by no means uncommon after an attack of measles to find œdema. The urine in such cases may be normal, and the œdema may last for several weeks and then pass away. Whether in these cases there is some inefficiency in the kidney without the presence of albumin is uncertain, but it is certain that the capacity to excrete water, and salts, and urea, and the capacity to retain albumin are absolutely independent. There are kidneys which may fail in one function and not in another. In some cases the kidney may be incapable of dealing with the salts, such as sodium chloride, in the body, and yet there may be no evidence of albuminuria.

Then we come to another group of cases in which we have chronic œdema. Chronic local œdemas are most commonly met with in cancer. It is very frequent, after an extensive removal of the breast for cancer, involving the cutting through of the lymphatics, to find a brawny œdema of the arm or thorax. In recurrent attacks of erysipelas of the face, also, a chronic baggy condition of the lower eyelids more particularly is often seen, and this becomes worse with each recurrent attack. As a rule these cases start in connection with some infective centre in the nose, and are not in any way amenable to the drugs. For such conditions Mr. Handley has formulated a special method of drainage. In the case of the eye, for instance, a silk thread is passed backwards and forwards in the connective tissue. It is actually buried in the tissue, and is left there so as to allow the fluid to gravitate along the thread down to the lower part of the cheek. The great difficulty in this operation or treatment is that in so many cases suppuration has taken place just where the thread has been put in, and this vitiates the whole thing. Otherwise, some of the results have been very satisfactory.

There are also conditions of œdema which are interesting because occasionally the symptoms are alarming, although the cases themselves are by no means important. Some of these cases arise owing to the legs having been left in a dependent position for a long time. A friend of mine going across to America was alarmed to find at the end of four days that his legs had become extremely œdematous. He thought that he must have developed some severe form of renal failure. He was reassured on finding his fellow-travellers in the same condition, and the trouble was caused, of course, by their posture. They had been sitting up, having their legs dependent for almost the whole time of the voyage. The same effect is to be noted in the case of a limb which has been put up in a splint and not moved. The position gives rise to an accumulation of fluid.

There are some cases of œdema which are difficult to classify, but which have their importance because they have to be treated. I might take, in the first place, the case of a woman aged forty, who when she was young was supposed to have had some myxœdema. She never had any mental failure, nor had she thickening of the skin or falling out of the hair, and from her history one does not quite see on what ground the diagnosis was made. She was, however, put upon 15 grs. of thyroid, which she had taken for twenty years. During these twenty years she had had several attacks of recurrent phlebitis in the legs, and quite recently two or three attacks of phlebitis in the popliteal veins. Her legs got very large, as big, indeed, as a man's thigh, and brawny, and she was unable to get about at all. Her weight was 15 st., and she had put on 28 lbs. during the last few years. Previously she had been quite slim. She had also now to take larger gloves. Her skin was supple, her hair normal, and nothing could be found wrong with her urine or her heart. She had increasing dyspnœa, and micturition was very frequent, taking place every two hours in the day, and three or four times during the night. In addition, she was taking large amounts of salt and large amounts of food. We gradually reduced the thyroid, and cut off all her salt, with the result that she lost one stone within the next two weeks, and within a very short time she was able to walk again and get about, a thing she had not been able to do for several years. So pleased was she with her progress that she insisted upon taking other measures in order to reduce her weight still further. Her general health improved, and within three months she

was able to go up to Scotland and enjoy herself. This case was one of massive œdema lasting for years, in which two factors were concerned, namely, the excessive amount of thyroid and the large amount of food. As it had been the patient's practice to take the thyroid for so many years, it was deemed unwise to cut it off altogether, but a reduction in its quantity and also attention to the matter of the patient's food quickly restored her to good health.

Another case, Mrs. P., whom I saw with Dr. Curtis, was 28 years old, and in excellent health until shortly before her child was born, when her face and lips became œdematous. The swelling persisted after the birth of the child, and her weight increased from 9 st. 6 lbs. to 12 st. 12 lbs. She was put upon some thyroid extract, 2 grs. of thyroid three times a day, but she became very depressed with it, and it did not agree with her at all. She was compelled to take boots two sizes larger than previously; her face had increased so much in size that many of her friends hardly recognized her; there were enormous masses of connective tissue on each side of the legs, and yet at the same time there was scarcely any pitting at all. Her abdomen increased $5\frac{1}{2}$ inches in circumference. Her heart was normal, her pulse was 50, and there was no similar condition in her family. Her salt intake and output was investigated, and the amount was found to be not so very abnormal, although she was still taking more salt than she should. It was, therefore, arranged that she should cut off her salt altogether. She was put on pituitary extract, and in less than a year she was quite well. There was here evidently some toxic condition associated with the patient's pregnancy which had interfered with the proper balance between the fluid and the tissues and elsewhere, but which, on cutting down her salt and putting her on pituitary extract, cleared up altogether.

In conclusion, I should like to say a few words about Milroy's disease. This is a disease which runs in families, and, so far as one knows, very rarely affects anyone whose parent is not affected. It does not necessarily follow that every child will develop it, but if they do it will be found that one of the parents has also been a victim. Nothing is known about the pathology, but apparently it is associated with some toxic condition. Quite early in life, usually after a disturbance in health, there may be felt a little fulness in one leg. There is not always temperature, but if there is it soon quietens again. Recurrent attacks occur, and in Dr. French's cases attacks have occurred in the vulva and various other parts of the body. The disease goes distinctly by steps, each step being associated with a health disturbance.

That is exactly what one meets with also in elephantiasis. This disease proceeds by fits and starts. The patient has an attack of pyrexia, shivers, and then what is thought to be malaria. He has recurrent attacks, and with each recurrent attack the œdema becomes more dense, and the final result is a chronic brawny condition with very fine secondary warty changes taking place in the skin, and finally the patient becomes more or less incapacitated on account of the enormous size of the limbs.

The same thing may occur with thrombosis of the vena cava. One patient was more or less confined to a sofa for something like eight years, and then gradually, with persistent attempts at walking, and massage, and exercises, the circulation became re-established, and the condition cleared up. One has to recognise that the lymphatics in Milroy's disease become blocked, and therefore one must not expect to get recovery. The patient, however, can be made comfortable by invariably insisting on the legs being raised at night. If there is a block placed at the foot of the bed and the legs are rested upon it, the fluid gravitates out of the legs, and in the morning the size is diminished. A good deal can be done by means of judicious massage to help on the circulation mechanically, and a good deal also by means of stockings and bandages. At the same time it is quite worth while giving fibrolysin a good trial. But if the patients will only realise the necessity of emptying out their legs every night in the manner just indicated, they will go a long way towards hindering the condition developing so quickly.

I have had a good many cases of œdema limited to one leg, but the difficulty is that poor patients cannot afford to continue the treatment. The condition is very much like the "white leg" of lying-in women. In that case also, if the circulation is persistently helped on mechanically, a great deal can be done to make the patients more comfortable.

THE EDITOR will, at all times, be glad to consider Articles or sketches, provided that they are accompanied by the writer's name and address, not necessarily for publication. The payment that the GAZETTE *can offer is merely nominal. Authors who desire reprints of their papers should make their own arrangements with the printers when they return their proofs. All contributions to be addressed to the Editor, "Guy's Hospital Gazette." Guy's Hospital, London, S.E.*

London Bridge and the Borough in the Eighteenth Century.

(*Continued from page 501.*)

XIII.

THE MEDICAL SCHOOL OF THE UNITED HOSPITALS.

"No doubt 'twould surprise the pupils at Guy's;
I am no unbeliever—no man can say that o' me.
But St. Thomas himself would scarce trust his own eyes
If he saw such a thing in his School of Anatomy."
Lay of St. Gengulphus, INGOLDSBY.

We have already seen in what manner the physicians and the surgeons had protected their interests before the eighteenth century was far advanced. The general practitioners had to wait still longer before they were enabled to improve their position. It remained for the passage of the Apothecaries Act in 1815, and the extension of its provisions in later years, to determine their professional status. Previously there had been no check whatever upon unqualified practice, whilst the educational pretensions of even the duly qualified practitioners were sometimes very slight. To remedy this, an extension of Act in 1830 first insisted upon a knowledge of the Natural Sciences and of Latin, and, if possible, of Greek also. Prior to 1827 no knowledge of midwifery had been considered necessary in a candidate presenting himself for examination.

A description, published in 1825, draws a sharp distinction between the modes of training of members of the three branches of the profession:—

"The physicians, supposed to be highest in rank, require only a certificate of two years' residence at a regularly constituted university in any country whatever before the party takes his degree therein, and three examinations carried on in the learned language of Europe.

"The surgeons, a degree lower, require a certificate of five years' previous attention to study, a twelve months' attendance upon hospitals and lectures; that is to say, in other words, the expenditure of about one hundred guineas amongst the principals of the college; and an examination in the vulgar tongue.

"The apothecaries, still lower in rank, now require five years' apprenticeship, *i.e.*, a good premium and five years' service to one of the fraternity, six months' attendance upon the London hospitals and lecturers, and an examination in the vulgar tongue, not only in pharmacy, but according to the construction which they put upon the Act, in medicine, anatomy, and botany."

At one time the surgical apprenticeship occupied seven years. It originated in Tudor times when the surgeons were on the same footing as the other City Guilds, to which the novice was admitted only after a long period of personal service and pupilage. Such a system of apprenticeship existed at St. Thomas's Hospital as early as 1561; and a later record, dated 1703, contains a provision that no surgeon was to have more than three "cubbs," or apprentices.

In the eighteenth century we have to discriminate between three classes of students at the Borough hospitals. In the first place, there were those who had bound themselves apprentice at an early age to a particular hospital surgeon to learn the whole art of surgery from him, paying a heavy premium for their long course of instruction. Next, the dressers, who may be assumed to have served their apprenticeship to a practitioner elsewhere, attached themselves to a hospital surgeon for a sort of post graduate course, paying £50 for a year of such instruction, or 30 guineas for six months. Dressers were at one time known as skellet-carriers, from their especial privilege of bearing after the surgeon in his tour of the wards the skellet, a receptacle resembling a knife-box, containing "plaisters, bandages, and linseed meal"; and they enjoyed the "advantage of not only assisting the surgeons in the performance of operations, but of having patients and unimportant accidents confided to their care in the absence of their superiors." Apprentices and dressers may, therefore, be regarded as then constituting what is now known as the surgeon's "firm," for there were no house-surgeons at Guy's before 1856. The third group, that of the "pupils," formed an outer zone at all surgical procedures. Like the dressers, they served their apprenticeship elsewhere, but unlike them, instead of attaching themselves to one surgeon, paid a smaller fee (24 guineas for a year, or 18 guineas for six months) and enjoyed the run of the lectures and practice, or, as the old expression has it, "walked the hospitals." The pupil's business was "only to look on and to make such enquiry as he chuse of the surgeon who is then attending." The judicious enquirer still flourishes on such occasions. It may be remembered that it was Edward Grainger's status of pupil that barred his way to promotion (eventually awarded to a former apprentice), and led to his withdrawal to form a successful school of anatomy of his own.

The pupil's name and fees were received at the Steward's office, on presenting a certificate from his late master that he had served five years with diligence and sobriety. When a pupil entered at either of the Borough hospitals he was considered as belonging to both and had the same privilege at each. Neither apprentice nor dresser paid the "pupil money." In the early part of the century there were only two surgeons and a single apothecary upon the staff; a third surgeon was added later. The pupil money was, therefore, pooled and divided between the six

surgeons and two apothecaries of the United Hospitals. In the earlier days, however, the apothecary was allowed no more than three pupils, but the surgeon was permitted to attach to himself four pupils and four dressers (inclusive of apprentices) at a time; but, naturally, there was no limit to the entry of pupils at the hospitals.

In addition to their entry fee, pupils paid 7 guineas for anatomical lectures, 10 guineas for chemistry, materia medica, and practice of physic, and, if they dissected, 5 guineas extraordinary. Apprentices' and dressers fees were paid direct to the surgeon and were his own property. Dressers' fees were finally abolished in 1846, the last apprentices at Guy's being Birkett, Callaway, and Foster.

At no time was medical *practice* common to the two hospitals. Although medical and surgical cases were received indiscriminately into each of the wards until as late as 1850, it appears that surgical cases alone were available at Guy's for the instruction of students from St. Thomas's.

From the earliest times the surgical practice had been held more or less in common by the two hospitals, but lectures on anatomy and surgery were always delivered at St. Thomas's, where were situated the dissecting-room and the anatomical theatre. On the other hand, from at least 1770 until 1825, all branches of medical study were lectured on at Guy's, and no physician of St. Thomas's was allowed to share them.

The school of St. Thomas's Hospital was but little in advance when its friendly competitor arrived on the scene. Medical education on a practical basis was scarcely thought of in England before the advent of the eighteenth century, when the Royal Hospital in Southwark had only just received a new lease of life after a long period of depression. On the other hand, the younger institution had been evolved, fully equipped, from the brain of the shrewd old City bookseller, who, in his charge to his Executors and Trustees, had desired that his foundation should conform "in all things, as near as may be to the course, customs, and usage of late years prevailing and practised in the said Hospital of St. Thomas."

Cheseldon had lectured on anatomy and surgery in 1718. He was succeeded by Dr. Frank Nicholls, who lectured in 1728, and by Mr. Nourse in 1730, and later still by another surgeon at St. Thomas's, Mr. Girl. Of the first four surgeons to Guy's, Croft and Cooper, Baker and Hasell Cradock, very little is recorded. The next pair (for in the early days there were only two surgeons at a time upon the Staff, and no assistants nor house-surgeons), Samuel Sharp, 1733—1757, and John Belchier, 1736—1768, both of them pupils of Cheseldon, were of more note. Of these, Sharp continued the anatomy lectures to the Borough students; he had also lectured at his house in Covent Garden, where he was succeeded in 1747 by William Hunter. His audience there had been mainly composed of naval surgeons, and what sort of men they were at the period may be learnt from the novels of Tobias Smollett, who himself for a time followed that occupation. Sharp was followed in the Borough lectureship by another Guy's man, a quondam apprentice of his own, Joseph Warner, 1745—1790. To him succeeded Mr. Else, and after him came the great surgeon, Cline, both of St. Thomas's. Dr. Haighton, afterwards physiologist to Guy's, an anatomist of distinction, was, at Cline's particular request, appointed his assistant, until the place was claimed for Astley Cooper. In later years Cline caused the latter to be appointed, jointly with himself, lecturer to the Borough hospitals. It was out of circumstances connected with the Cooper succession that the dispute arose which led ultimately to the establishment of a separate school at Guy's, in 1825, a year significant also as the centenary of Guy's foundation. Astley Cooper first separated the subjects of anatomy and surgery in his lectures, devoting a special course to the latter where previously six chirurgical lectures had been crowded in at the conclusion of those upon anatomy.

The early records tell us very little of medical instruction in the Borough Schools. About 1765, Dr. Fordyce, senior physician to St. Thomas's, was lecturing on botany, assisted by William Curtis, who afterwards became demonstrator of botany to the Society of Apothecaries. Curtis, for a time, had a small botanical garden near Grange Road, but afterwards removed to larger grounds in Lambeth Marsh.

In 1770 the old Chemistry Theatre was built at Guy's to accommodate Dr. William Saunders, who lectured there thrice weekly. The institution of these lectures followed close upon a reconciliation between the two hospitals, which had broken off all relations in 1660, after a dispute over the reciprocal attendance of students at operations. The quarrel was patched up in 1668 when it was agreed that the students should see the whole of the surgical practice of both hospitals; and the new medical course, by special arrangement, was thrown open to the men from across the street.

At the end of the century the student might safely choose the Borough as a place in which to spend a happy day. In 1792 we are told "there are lectures read every morning at half past seven on midwifery by Dr. Lowder in the borough; they continue until half-past eight. At ten o'clock in the morning Mr. Babington, the apothecary at Guy's, gives a lecture on Chymistry, which continues until eleven, when the practice begins. Those mornings that pass without a lecture in Chymistry, Dr. Saunders supplies with one on the Practice of Physic. . . . The Anatomical lectures are every day from one o'clock until three. These are read at St. Thomas's Theatre by Mr. Cline, the former in Chymistry and the Practice of

Physic at the theatre at Guy's." Let us hope the authorities were not hard to please when "signing up for Midder" in those days.

In 1795 William Allen, the chemist, joined Mr. Higgens in the lectureship on Natural Philosophy, while Babington and Curry lectured on Medicine and Haighton on Physiology. Dr. Haighton was one of the practitioners whom the College of Physicians in the first decade of the nineteenth century decided to prosecute for practising within the limits of their jurisdiction without their license. Haighton replied that he was willing to sit for the strictest examination they might impose, and to pay the fee for their license, but flatly declined to reside at a University for two years, as they had demanded. Babington, among other professional men, complied with the conditions imposed by the College. In earlier days Dr. McGhie had been distinguished from his colleagues on the Staff by not possessing the F.R.C.P. Babington, the apothecary, was afterwards promoted to a physiciancy on the Guy's Staff. It is, perhaps, not generally known that the only members of the medical profession represented by monuments in St. Paul's Cathedral are both Guy's men—Dr. Babington and Sir Astley Cooper.

Dr. Golding's description of St. Thomas's Hospital in 1813 is full of interest from the light it throws upon the origin of some of our present institutions. "Contiguous to the theatre is the sleeping room of the Dresser who, in the capacity of House-Surgeon (*pro tempore*), remains on duty in the absence of his superior to be in readiness in case of accidental misfortune requiring his aid to administer relief should any patient in the hospital be attacked by hæmorrhage or other distressing symptoms and need prompt assistance of his professional skill. The Dressers sleep in rotation from one *taking-in* day till the next, and thus each remains in constant attendance during the space of a week. Underneath the Dresser's room is another apartment for his accommodation throughout the day, that he may have no inducement for neglecting his important trust until he is superseded by another."

Here, then, is the original of that institution remembered in after years, above all others, by the old Guy's man—*O, noctes cœnaeque deûm!*—the Dresser's Room.

"Regulations for the Theatre: Apprentices and Dressers of the Surgeon who operates are to stand round the table. The Dressers of the other Surgeons are to occupy the three front rows. The Surgeons' Pupils are to take their places in the rows above." In this theatre occurred, in 1836, the scene which, once and for all, severed the relations which had existed between the Borough hospitals. In the September issue of the Gazette we related the incidents which led up to the split in 1825 which resulted in the foundation of an independent Medical School at Guy's. Even after that a "slender bond of union" still existed in the permission of students of one hospital to see the practice of the other. On February 14th, 1828, was founded the United Hospitals Club which, happily, still cultivates friendly relations between the Thomas's and Guy's men who are its members. To this period also belong the two medical ruffians in Pickwick, for Dickens himself in the footnote to Chapter II. has definitely ante-dated his story to the year 1827.

The last rupture occurred in December, 1836. Notice of three operations had appeared as usual on the walls of St. Thomas's. A crowd crossed over from Guy's, only to be refused admittance when they were unable to produce their tickets. This, in itself, was a breach of custom, for, according to tradition, the challenge was sufficiently answered by giving as the countersign the attachments of Poupart's ligament. The two contingents, with tempers already ruffled, met in the operating theatre, and when two Guy's dressers were refused a place, allowed by custom, in the well of the theatre, a riot commenced. By virtue of superior numbers, the Thomas's men turned out their opponents, who assembled with reinforcements from their own and from Grainger's School in the front square of St. Thomas's. Operations had been abandoned for the day, and the police were called upon to tackle the mob outside, and nine Guy's men were arrested and bound over at the next assizes to keep the peace. The Staff of Guy's passed a resolution, and the Chaplain, Frederick Denison Maurice, and the Steward, James Browell, published separate testimonials, all of which testified to the well-known fact that there never had been more perfect little lambs than the Guy's students of that day. And from that time the Borough hospitals were no longer United.

(*To be continued.*)

Correspondence.

To the Editor of Guy's Hospital Gazette.

[We would point out that we cannot *under any circumstances* publish any letter unaccompanied by the writer's name and address, not necessarily for publication.—Ed., G.H.G.]

The Treatment of Consumption.

Dear Sir,—I am glad to see the announcement of a discussion on the "Treatment of Consumption" at the Physicial Society. It is, indeed, an admirable corollary of the views that you have recently expressed on the desirability of the teaching of common diseases. Twenty-five to twenty years ago one had little opportunity of studying "Consumption" in the wards or Out-Patient rooms at Guy's. Even now, the special hospitals are the only places where such knowledge can be obtained in its

fullest development. Those of us old Guy's men who have met therein with the difficulties that medical men, and patients alike, experience, for lack of such teaching to medical students, will rejoice that Guy's is taking the lead by turning serious attention to the subject.

The list of names you give is a guarantee of the high level aimed at in the discussion. I trust that, the matter once opened, we shall see developments on sound lines, and that "The Treatment of Consumption" will never be allowed to drop as an essential part of the Guy's teaching, till there is none to treat.—I am, Sir, Yours faithfully, THOMAS DAVID LISTER.

31, Harley Street,
December 7th, 1912.

Memorial to Dr. Wade.

DEAR SIR,—Many of the late Dr. Wade's former colleagues, pupils, and other friends, have expressed the view that a permanent memorial of his long connection with the Medical School, should be placed in the Chemical Laboratory.

The most useful form this could take would be the purchase of his well selected library of scientific books. Mrs. Wade has agreed to part with the library if a book plate, or other suitable inscription, is placed in each volume.

The library contains the Journals of the Chemical Society for the last forty years, and many valuable books of reference. No fixed sum has been offered for the books, but it is hoped to collect at least fifty pounds for the purpose.

Any of us will be pleased to acknowledge subscriptions.—We are, Yours sincerely,

R. ASSHETON.
A. H. FISON.
T. B. LAYTON.
R. W. MERRIMAN.
M. S. PEMBREY.

Guy's Hospital,
London Bridge, S.E.
11th December, 1912.

The Treatment of "Suicides."

DEAR SIR,—May I encroach upon your columns in order to say how gratified I was to see that you had given publicity to some opinions of mine upon the hospital treatment of "suicides."

I am very sensible of the obligation under which you have placed me by your notice of my suggestion, and I hope that it may receive equal consideration in administrative quarters.

The treatment and ultimate fate of "suicides" admitted to this hospital have interested me for some time and I had hoped to collect data and evidence bearing upon these points and submit them to you for publication in the hope that existing defects might be exposed and, if possible, remedied.

I feel now, Sir, that such evidence would be superfluous, for the case has been more clearly and emphatically stated by you than I could ever hope to have done. May I, however, take this opportunity to suggest that in our treatment of patients generally, not enough time or thought is given to the effect of disease upon the mind, or, again, to the effect of mind upon disease.

It is so easy to dismiss subjective symptoms with such epithets as "imagination," "hysteria," "auto-suggestion," "nervousness," and the like, whereas often these vague and, apparently, unintelligible statements made by the patient are, to him who can interpret them, valuable signs of organic or mental disorder.

In conclusion, to refer again to suicide, may I point out that this symptom of mental instability is increasing at an alarming rate.

This I submit is largely due to the fact that our knowledge of the causes, prevention, and cure of suicide is deficient. This deficiency can only be supplied by the careful study and examination of cases which come under our notice. At present we are therefore wasting valuable clinical material when we admit a suicide and never interest ourselves further in the case after we have washed out his stomach or sewn up his throat. It may be urged that psychical examination is more difficult, more tedious, and infinitely more trying to the physician than physical examination, all of which is true, but our duty in certain cases is none the less clear, therefore, such investigations should not be shirked.—Yours faithfully,

The College, S. W.
Guy's Hospital,
14th December, 1912.

Iodide of Potassium.

SIR,—In your issue of to-day's date there is a letter by "An Old Guy." I, also, well remember what a splendid teacher the late Dr. Moxon was, as I was his Ward Clerk and Clinical Assistant. "An Old Guy" might have mentioned, with advantage, the *amount* of the dose of Iodide of Potassium which he finds best. He merely says "large doses."

The difficulty met with in prescribing Iodide of Potassium in small or medium doses is, of course, the troublesome "Iodism" frequently caused by them.

English physicians appear to have always used only small doses of the Iodide, and at the present time some of the chief consultants are trying *extremely small* doses.

In the B.P., 1874, the dose was 2 to 10 grs.—B.P., 1885, dose 2 to 20 grs., and in B.P., 1898, dose 5 to 20 grs.

Now the *Scotch* physicians consider that to get the full effects of the Iodide *very large* doses are necessary in plenty of water, taken on an empty stomach. Dr. Byrom Bramwell, years ago, advised these large doses in order to remove a gumma. He says, "I usually begin with *30 grs.*, given in a *tumblerful of water* three times a day, an hour before meals. If this dose does not seem to be sufficient, I do not hesitate to increase it largely."

It is quite common for Scotch physicians to increase the dose to 60 grs. or 80 grs., or more, three times a day.

I should like to find out whether these large doses have been carefully and systematically used, so as to thoroughly test their effects by the *English* consulting physicians and surgeons? ANOTHER OLD GUY.

7th December, 1912.

Women's Rights.

DEAR SIR,—I noticed with interest in the last issue of the GAZETTE, you mention that steps are being taken to inaugurate a branch of the N.U.W.S.S. among the nursing staff here.

As the fundamental object of all such societies is to improve the status of women, there is plenty of scope for a branch within our own walls.

Surely one of its earliest efforts ought to be to have pamphlets printed and distributed among the women patients, stating in plain terms the dangers of venereal diseases, impressing upon them the necessity of continuous treatment and precautions to be taken. It is really serious the number of cases that are treated in Out-Patients and sent away without a word of warning. My nurses and I when possible impress the women with the facts, but many I know slip through. One very nice woman was surprised when I warned her about the danger of infecting her family, as she said the doctor did not seem to think seriously of her condition.

I feel it very deeply that, to save themselves a little inconvenience, the medical profession in general refuses to warn these, in many cases innocent, women of the scourge that has fallen on them, and which they may transmit if not careful; nor do they always warn the nurses of the nature of the case they are called upon to attend. I hold that in all such cases the disease and necessary precautions should be fully explained to them, but I am constantly told that trouble may be the outcome. My answer is: "Would a medical man allow a case of even suspected smallpox to return home without notifying another responsible member of the family?" Yet this equally serious and more insidious disease is allowed to pass with little or no warning.

Then, again, the question arises: how far are we justified in maintaining professional secrecy, by failing to notify a woman of her husband's condition? I know one sister who, several years ago, when I was working under her, took the law into her own hands and warned the relatives of a very nice girl, whose fiancé was warded. This she did in spite of the house-surgeon telling her it was no business of hers, and her duty lay with her patient only. Surely it would have been moral murder to let an innocent girl run into such a marriage without warning. . . .

Another aim of the Society is to see that working women are sufficiently paid. Here, again, there is room for reform. Take for instance the Out-Patient Dept., which I am leaving soon, so feel I can speak strongly without being accused of seeking personal gain; the department has increased enormously in every way of late years, yet the *salary attached remains the same* as it was previous to the rebuilding, reconstruction, and enlargement. Can you imagine a working man being satisfied with such a condition of affairs? Then why should a working woman? Think of the Light Department eight years ago, think of it to-day. Consider the added work and responsibility incurred by the opening of the new theatres and the retirement of Coels; also the increase of work in the surgical wards to necessitate such an addition to the operating rooms. I think I am right when I say the "honorarium" in all cases has remained the same. Can it be possible "the salary sheet" has been buried under the heap of architectural plans, which have for some time past occupied the committee's table? If so, I hope that with the return of the spring cleaning season it may be brought to light and the notice of the members.—Yours truly,

J. B. N. PATERSON.
(Sister O.P.)

Guy's Hospital Musical Society.

ONE of the largest audiences that we have seen was present at the concert given by the Society on December 6th. Mr. Carey had, needless to say, arranged a very interesting programme, and one which was thoroughly to the taste of those present. It was in great part due to the fact that several of the best singers were absent that the chorus did not at all times reach that standard which we have learned to expect from them when performing under Mr. Carey. In several items the members would not keep their eyes on the conductor, in spite of his gesticulations, and, as a result, there was a tendency to a lack of accuracy in attack, of expression, and rhythm. This was particularly noticeable in Brahm's lovely "Vineta" and in Ireland's "In Praise of Neptune." In the latter work the line "like the great thunder sounding" was sung in the meekest manner possible. Much better was the rendering of three old-English madrigals, one of which was technically far from easy. The nurses sang two of Blake's "Songs of Innocence" to settings by Walford Davies. They were especially good in the "Cradle Song," but we should like to have heard a little more of the accompaniment. This is one of the most charming part-songs that we have heard for some time. The chorus were, perhaps, at their best in Stanford's "Sweet Love for Me," which they sang crisply and effectively.

So much for the work of the chorus which was, on the whole, satisfactory when it is remembered that the practices were much hampered by the inability of many people to turn up regularly.

The soloists were excellent. Mr. Carey gave us of his best. In the first half of the programme he sang a new and very beautiful setting of "The Sands of

Dee," by O'Neil Phillips; later on in the evening he sang three of the well-known songs of the North. One small criticism: Why did he insist on ending each verse of "Ae Fond Kiss" on the wrong note? We fear that there is no doubt that it was the wrong one. Nurse Millar was hampered by a cold, but was, of course, delightful. She sang "Solveig's Song" and "The Enchantress." As an encore she delighted the audience with one of the Irish songs which she knows so well how to sing. It was a great pity that Nurse Fletcher was prevented from singing. Her place was taken by Miss Hinds, whom we hope to hear again before long. She sang three songs, the best of which was a folk-song by Korbay. Herr Emil Krall was another absentee. Miss Edwards, who is an excellent pianist, filled the vacancy. She played a Chopin Prelude and Ballade and a Liszt Polonnaise. Mr. Harrington sang three solos. He was not altogether happy in their interpretation, good as is the quality of his voice. Mr. Jarvie played most of the accompaniments, which could not have been in better hands. The audience was a very enthusiastic one. It was a refreshing and encouraging change to see so many people present.

At the end of the concert Dr. Shaw made a speech, in which he expressed the very real regret with which we are parting with Mr. Clive Carey. He emphasised our great indebtedness to him, and pointed out the great advance which music has made at Guy's, due entirely to his personality and capability. He pointed out that we ought to congratulate ourselves on keeping him for so long as we have. All of us who have worked under Mr. Carey will fully endorse Dr. Shaw's words.

During the interval Nurse Millar, who has just left the hospital, received a small presentation from the Society.

Appointments.

Medical School Appointments.

JANUARY—MARCH, 1913.

Clinical Assistants in Clinical Wards.—Messrs. R. C. Ozanne, R. A. Fawcus, A. Seabrooke, H. C. Rook, W. Robinson, J. F. G. Richards.

Clinical Assistants in Medical Wards.—Messrs. J. A. Martin and P. H. Berry (Dr. Hale White); J. A. Ryle and E. M. Mahon (Dr. Pitt); J. L. D. Lewis (Sir Cooper Perry); D. W. John (Dr. Shaw).

Dressers in the Throat and Ear, Genito-Urinary, and Children Departments.—Messrs. E. C. W. Starling, S. Wilson, A. N. Minns, P. R. Boswell, R. J. Hearn, A. C. Clifford, A. B. Danby, G. Covell.

Dressers in the Throat and Ear, Skin, and Orthopædic Departments.—Messrs. L. Muir Smith, D. C. Scott, T. W. Sheldon, A. Abd-el-Al, H. W. Evans, J. W. Kemp, W. L. Gwyn-Davies, A. V. Moberly.

Dressers in the Ophthalmic and Nervous Diseases Departments.—Messrs. A. Wills, W. E. Tanner, F. C. S. Broome, J. L. Perceval (Mr. Eason); H. P. Whitworth, C. Dean, F. Collar (Mr. Ormond).

Obstetric Dressers and Externs.—Messrs. R. O. H. Jones, H. S. Groves, F. H. Dodd, A. C. Hancock, C. S. L. Roberts, A. J. E. Smith, P. Savage, J. York Moore, A. J. Drew, L. du Vergé, R. C. Matson, F. W. Lawson, F. V. Bevan-Brown, J. F. Venables, D. V. Pickering. (Externs) W. R. Pryn, T. A. Townsend.

Surgeons' Dressers.—Messrs. W. D. Galloway, H. G. Dresing. C. R. Smith (Mr. Lane); G. B. Pritchard, H. L. Messenger, F. Gilbert L. Scott, F. E. R. Laborda (Mr. Dunn); R. B. Campion, T. R. Trounce, E. R. Bailey (Sir A. Fripp); D. M. McManus, N. H. W. Saw, G. L. Attwater, H. L. P. Peregrine (Mr. Steward).

Extension Medical Ward Clerks and Post-mortem Clerks.— Messrs. P. D. Scott, H. Parry Price, S. S. B. Harrison (Dr. Hale White); W. M. Lansdale, W. A. Young (Dr. Pitt); C. de W. Gibb, O. G. Parry-Jones, R. Sells (Sir Cooper Perry); J. F. H. Stallman, L. A. J. Graham (Dr. Shaw).

Post-mortem Clerks.—H. S. Groves, A. H. Taymour, H. Gould, D. R. Jones, E. D. Scott, H. H. Elliot, C. F. Pedley, R. J. Hearn.

Medical Ward Clerks.—J. F. Mackenzie, C. H. Medlock, W. L. E. Reynolds, B. Sampson, H. Q. F. Thompson, A. K. Day-Lewis, R. W. P. Jackson, L. S. Fry.

Assistant Surgeons' Dressers.—Messrs. A. H. Harkness, D. O. Richards, C. E. Petley (Mr. Fagge); J. S. Cocks, A. S. Liebson, B. Burnside (Mr. Rowlands); J. E. Davies, J. Stephenson, R. W. Cushing (Mr. Turner); L. Horsley, A. L. Anthony, L. R. Pickett (Mr. Hughes); J. H. Parry, W. H. Nicholls (Mr. Davies-Colley).

Surgical Ward Clerks.—Messrs. W. L. Partridge, E. W. Bowell, K. Westman, A. C. M. Coxon, M. Chadwick, G. B. Tarring, E. J. Cooke.

Assistant Surgeons' Clerks.—Messrs. J. Victory (Mr. Fagge); K. N. Purkis (Mr. Rowlands).

Naval and Military.

Royal Navy.

Fleet Surgeon F. Davidson Lumley, R.N., is placed on the retired list at his own request, 5th December, 1912.

R.A.M.C.

Surgeon Captain George S. C. Hayes, 1st Life Guards, retires, receiving a gratuity, 9th October, 1912.

Captain T. C. Lucas, M.B., B.C., has taken up duty at Bombay, as Surgeon to his Excellency the Governor of Bombay.

Indian Medical Service.

Captain F. A. Barker has been appointed to the Jail Department, Punjab, as a temporary measure under the orders of the Home Department.

Reviews, etc.

Books for review should be addressed to The Editor, Gazette Office, Guy's Hospital, S.E. Their price should in every case be stated.

The Course of Operative Surgery. By Victor Schmieden. Baillière, Tindall & Cox.) 12s. 6d. (Translated and Edited by Arthur Turnbull.)

This is certainly one of the best text-books on Operative Surgery that has yet been produced; so good is it, in fact, that it is difficult to decide which of its features is to be considered particularly responsible for its excellence. Binding, illustrations, and letterpress, are all above the average; but it is, perhaps, the well-nigh perfect illustrations that have principally captivated the reviewer, and it is in the pictorial part, above all, of such a study that excellence is needed.

The photographs demonstrate admirably the things which they are intended to demonstrate—an achievement not common to all similar reproductions, while the drawings are at once beautiful and anatomically accurate.

The letterpress, likewise, is clear and descriptive, and free from the tediousness and verboseness, which sometimes characterize accounts of operative procedure.

The author, the translater, and the publisher, are all to be congratulated, while the fact that Professor Bier has contributed a foreword should be ample testimony to the worth of the book.

Ophthalmic Nursing. By Sydney Stephenson, M.B., C.M., F.R.C.S. (Edin.), D.O. (Oxon.) (The Scientific Press). 3s. 6d. net.

We have just seen the 3rd edition of this interesting book, and find it much fuller than previous ones. The author has succeeded in including all recent operations and treatment; and it wlll be found a most useful book for those who have not been fortunate enough to have received special instruction in this branch of nursing, as well as a reference for those who have. From a nursing point of view, one notices immediately that it has been written by a man, as on pages 84 and 99, he does not realize the difficulty there would be in nursing a patient prepared as he suggests; all general anæsthetic and cataract cases are dressed so that there shall be as little movement of the patients as possible when they are put back to bed, consequently, they are put on the operating table with garments split down the back.

On page 105, one is left wondering whether disinfected instruments, placed in non-irritating fluid, are to be boiled before using; if so, why waste time putting them in 1 in 20 solution of carbolic previously. The bandage, on page 126, fig. 29, could, of course, only be used for patients out of bed, as the knot would hurt the back of the head.

The appendix will be found especially useful, with its list of instruments, illustrations, and glossary. We feel sure that nurses have only to have their attention drawn to this book, and its moderate price, to secure it at once the wide circulation it deserves.

Rugby Football.

GUY'S v. RICHMOND.

This was not a very good game at Richmond on December 7th. Much of the play was rather scrambling, and anything like fast work was spoilt completely by the enormous amount of whistle. It was rather difficult at times to exactly make out what the various free kicks were for. Many of them were against the Hospital, and the particular kick that followed Laver's infringement when Wilson kicked a goal should scarcely have been allowed. A scrum, if anything, would quite well have met the offence against the rules.

Guy's defended very tenaciously during the first twenty minutes, when Richmond were seeing a good deal of the ball. The home side also experienced some difficulty in holding the ball. Harkness shone in defence and prevented a certain score by tackling surely. Guy's got going a bit better after this, the backs passing neatly, but half-time arrived with a clean score sheet. Not many minutes had elapsed after the recommencement when all the backs had a hand in a round of passing initiated by Medlock, Nicholls gaining a try from the manœuvre. Medlock converted. Then came Richmond's penalty goal, gained by Wilson. Before the end the Richmond forwards scored through Read as the result of a forward rush. No goal resulted, so that Guy's had to admit defeat by a single point. Richmond, 1 penalty goal, 1 try (6); Guy's, 1 goal (5). Team:—

Guy's.—A. H. Harkness (back); A. F. Rook, C. L. Curle, E. C. Nicholls, F. Tooth (three-quarters); C. H. Medlock, J. E. Davies (halves); W. S. Stranack, O. Parry-Jones, A. L. Liebson, M. Tweed, A. B. Danby, H. P. Whitworth, A. L. Anthony, C. H. Laver (forwards).

GUY'S v. BEDFORD.

Guy's were just beaten at Honor Oak Park on Saturday, December 14th, by 2 tries to 1 goal, 6 points to 5, the same margin as Richmond got home by against the Hospital the previous week. Bedford's win was largely accounted for, as the Guy's men will admit, by the excellence of their forwards. They were a very even and powerful pack, who used their strength and packed low and level, so that every ounce told. Moreover, they had no wingers. Several times they ought to have been penalised for not playing the ball when held, but for all that they finished in rare style, and were by no means done with at the end.

It was a very fine piece of work that gave Guy's their goal. Davies and Medlock sent the three-quarters away, Rook, the last to receive, cross-kicked, and Medlock promptly gathered and ran behind the posts. The same player kicked the goal. A little later Harkness got away with Medlock in attendance. The full-back reached Medlock, received from Harkness, and went off at full speed. Three yards or so from the line Burder pulled him down, but Medlock passed to A. W. A. Davies, who ran over, but failed to touch down, and the referee ordered a 5-yard scrum. Medlock ran splendidly; but why the referee ruled a 5-yard scrum was not quite clear to those in the stand.

After half-time, Guy's forwards had gradually to give ground, and the Visitors played up very determinedly. Their hand-to-hand passing was good. Millett was a little less certain than usual, but it was a plucky tackle of his that prevented Wade, who got Bedford's first try, going near the posts. Fowler's kick was not quite high enough to convert. A free to Guy's brought temporary relief but the forwards

could not get away. The high wind also prevented much ground being gained by kicking. Only a minute or so remained for play when Osborne got Bedford's second try, which also went unconverted, so that the game ended as given above. Team:—

GUY'S.—H. Millett (back); A. F. Rook, G. B. Pritchard, A. H. Harkness, C. L. Curle (three-quarters); J. E. Davies, C. H. Medlock (halves); W. S. Stranack, O. Parry-Jones, M. Tweed, A. S. Liebson, A. W. A. Davies, A. L. Anthony, H. P. Whitworth, A. B. Danby (forwards).

REMARKS.—It was good to see M. Tweed out again, this being his second game this season. G. B. Pritchard also again came to the side's assistance after some weeks' rest, under the doctor's orders. The forwards were overweighted and worn down, but individually they did their best. They want to get more together yet. J. E. Davies is short of practice; Medlock very good. His energy is most praiseworthy, and the faculty for being where wanted never better displayed. The three-quarters didn't get the ball very often. The Bedford forwards saw to that. Millett not quite so safe as usual, but a nasty kick on the leg in the first half caused him pain and inconvenience.

GUY'S v. NORTHAMPTON.

It was a little discouraging to the Hospital men who went to Northampton on Saturday, November 30th, to find themselves penalised twice in quick succession soon after the game started, and to have two goals duly registered against them by Muddiman. There is a great deal in being the first to open the scoring, but when that scoring is opened by a couple of penalty goals against one, it scarcely puts a team on good terms with themselves. From these early disasters Guy's never recovered, and though they had ill luck in not scoring, they could fairly claim that nothing but sheer misfortune prevented them doing so on at least three occasions. The forwards got well on to their game after the second goal referred to above, but Gillam, a Northampton winger, dropped back and saved. Curle next sent Harkness a pass, but it was not accepted; a score looked almost certain had Harkness fairly got the ball. Northampton were soon at the other end, when Millett played a great game. He tackled Cook in great style, and just after saved from Muddiman; but good passing by the home threes put Collier in for a try before half-time. So ends were changed, Northampton leading by 9 points.

The second half went all in favour of the home team. Cook sent Gillam in, and then Collins, with an easy run before him, dropped the ball. But he made no mistake a few minutes later on, getting over with a nice try. Wade and Tebbitt added further tries before the game ended, the final score reading—Northampton, 2 penalty goals, 5 tries (21); Guy's, 0. Team:—

GUY'S.—H. Millett (back); A. F. Rook, A. H. Harkness, L. E. Kendall, C. L. Curle (three-quarters); J. E. Davies, C. H. Medlock (halves); R. S. Kennedy, O. Parry-Jones, W. S. Stranack, A. B. Danby, A. S. Liebson, A. L. Anthony, H. P. Whitworth, C. H. Laver (forwards).

Association Football.

UNITED HOSPITALS v. CORINTHIANS.

At Chiswick, on Saturday, November 30th, before a large crowd, a very fine game was witnessed between the above elevens.

Neither side was at full strength, the Hospitals being without Herman, Stretton, and both Stebbings and Johnson, while the Corinthians lacked the services of Bache and Maples at inside-forward. The fact that they, nevertheless, fielded a team of A.F.A. Internationals speaks well for their strength. The game started off at a great pace, the beautiful combined runs of the Corinthians' forward line, carried on at a great pace, were beautiful to watch, and caused the Hospitals' defence no little trouble. Brisley was continually putting his men through, but Bird and Blackmore came across in great style from the wings and constantly floored their men in the act of shooting.

Only once in the opening half were the Corinthians successful, a perfect movement in which Kerry, Short, Brisley, and Cardew took part, ending in a goal by Cardew.

On resuming, the Hospitals were very energetic and set up numerous attacks; from one of these D. A. Bevis (who had been allowed to take the place of Cooke injured) gathering a centre from his brother scored with a fine drive, making the scores level.

The Corinthians, who have won all the games for three years, then went all out for the last twenty minutes but met a stubborn defence; and it was not till close on time that Short put them ahead with a shot from a seemingly impossible angle. The Corinthians were thus successful by the narrow margin of 2 goals to 1. Teams:—

HOSPITALS.—G. Cranstone (goal); S. J. D. Buxton, H. B. Neely (backs); G. A. Bird, H. G. Chaplin, L. G. Blackmore (halves); S. W. Bevis, C. A. Deakin, A. C. M. Coxon, R. C. Cooke, G. Steill (forwards).

CORINTHIANS.—N. V. C. Turner (goal); V. G. Thew, I. E. Snell (backs); R. M. Weeks, J. W. H. T. Douglas, N. C. Raikes (halves); W. B. Harris, A. E, Cardew, C. E. Brisley, H. S. Short, A. H. G. Kerry (forwards).

Hockey.

GUY'S v. SPENCER H. C.

This fixture, appearing for the first time on our fixture list was played at Merton Park on Saturday, November 16th. Guy's were, as usual, much below full strength, being without four of our most useful men. It seems almost too much to expect, now, to get together at all a representative side.

Guy's won the toss and elected to play up the slight incline for the first half, there being none who evinced the slightest desire to play in goal. We played three backs, which nearly proved our undoing. The game was fast and not without interest. The interest centreing mainly around those who were taking the places of the absentees. Of these, Jessop, at right inside, and Waghorne, at right half, were the most conspicuous, both playing a hard and indefatigable game. Vincent-Brown, on the left wing, did a lot of hustling, but is inclined to fumble. He should prove of use later on in the season. Gripper was also very industrious and no less successful at left back. We were very glad to have Poulton back again at centre-forward. Jessop opened the score for Guy's soon after the commencement of the game; he repeated his success a few moments later, after a tussle in their circle. Spencer retaliated, and the whistle blew for half time. Score: Guy's, 2; Spencer, 1.

Play recommenced immediately after refreshment, owing to the very bad light; as it was, the last twenty minutes was played in almost complete darkness, making the game as difficult as it was dangerous. During the second half of the game, Guy's were tried

severely, especially as the backs had nobody in goal to rely on. Jackson cleared well for Guy's, and Parry and Poulton, going well together, the latter scored. After the bully-off Spencer took the ball down to our circle and scored. (Guy's, 3; Spencer, 2). Peregrine, taking an excellent pass from Vincent-Brown, scored for Guy's, 4–3. Spencer again retaliated (4–4). Jessop managed to score again in the dark, and no time was called. Score: Guy's, 5; Spencer, 4. Team:—

GUY'S.—R. C. Matson, G. D. Gripper, B. Burnside (backs); C. R. Smith, F. C. Jackson, L. Waghorne (half-backs); B. Vincent-Brown, J. H. Parry, E. P. Poulton, —. Jessop, H. L. Peregrine (forwards).

The game was interesting in that it showed up the value of our reserve men. The return should be an equally good game, and is much to be looked forward to. It is much to be hoped that men will make some sort of effort to turn ont more regularly than they are doing at present, that we may have opportunities of playing together before the Cup-ties begin next month.

GUY'S HOSPITAL v. HOUNSLOW GARRISON.

Played on December 7th, at Hounslow Barracks. Guy's were once more rather weakly represented.

The game was very enjoyable, and thanks to the good play of the reserves, the Hospital did not suffer defeat from the absence of their first XI. men, but gained a well-deserved victory by 4 goals to 1. For the first ten minutes the Garrison did most of the pressing, and Burnside saved well on two or three occasions. After this, Guy's forward began to play better and after pressing for some time Poulton ran through from our opponents "25" line and scored a good goal. He repeated this performance a few minutes later. The Garrison pressed hard after this and scored through their right inside. Guy's tried several shots after this through Purdom, Martin, and Vincent-Browne, and before half-time the last-named scored with a very good shot. The second half was very even, but Guy's defence was too sound and the forwards lasted better than their opponents, and scored their last goal through Parry after the ball had passed from Martin, Poulton, and Purdom.

For Guy's, Burnside played well in goal; the backs were good, but Green is much too fond of running up with the ball instead of clearing. The halves were very good. At forward Poulton and Vincent-Brown were the best, Parry being out of practice, and Purdom was not used to right inside. Martin should go to fetch the ball more instead of waiting and thereby allowing an opponent to intercept. Team:—

GUY'S.—B. Burnside (goal); G. D. Gripper, H. Green (backs); L. Waghorne, R. W. P. Jackson, C. R. Smith (halves); E. Martin, H. N. Purdom, E. P. Poulton, J. H. Parry, R. Vincent-Brown (forwards).

GUY'S v. ST. THOMAS'S.

Played at Raynes' Park, on Saturday, December 14th. Guy's had a nearly full first eleven team out this time for the first time this season, though Morgan and Poulton were unfortunately absent.

From the start, Thomas's pressed, and within the first twenty minutes they scored three goals, two being very clever shots by Gardiner at centre forward. After this Guy's began to play better. Graham was in a good position in the circle, but was whistled "off-side" as the referee had not seen that an opponent had touched it. Later, Purdom sent in a hard shot which hit the post and went outside, and then Venables and Jackson brought the ball right down the field with a fine rush. After pressing hard like this, Graham finally scored with a good shot, and we changed over, 3—1.

In the second half, Guy's were distinctly better, although it was up-hill and against the wind. We pressed nearly all the time apart from one or two rushes by the Thomas's forwards. Parry finally scored, and this was the last goal, leaving Thomas's winners by 3—2. Guy's were distinctly unlucky in not equalising at least. Vincent-Brown shot over the bar, and so did Venables, while playing left inside for the last ten minutes. Graham would have scored but for the good play of the goal-keeper.

For Guy's, the forwards were patchy and lacked good combination. Graham was good individually, but there was not good combination between him and Peregrine. Vincent-Browne was again good at left outside. The halves were all very good and worked tremendously hard. Gripper was good at back, but Matson seems to have lost his form as a back and was playing too far up all through the game. Burnside cleared well and cannot be blamed for those goals which were scored. Team:—

GUY'S.—B. Burnside (goal); G. D. Gripper, R. C. Matson (backs); C. R. Smith, R. W. P. Jackson, J. F. Venables (halves); R. Vincent-Brown, H. N. Purdom, J. H. Parry, L. A. Graham, H. L. Peregrine (forwards).

This was our last match for this term. Up till now the season has been fairly satisfactory, but it is hoped that we shall do better next term, when we expect to have the regular first XI. men out each match, in view of the Inter-Hospital tournaments. A lot of practice together will be needed before the tournaments start, and Guy's must learn to play hard from the very beginning. We lost our last match through this fault, which allowed our opponents to score three times in the first 20 minutes.

The following is our record up till now:—

Played 8; won 4; drawn 1; lost 3.—Goals for, 34; gaols against, 21.

The next match is on January 24th, v. Forest Hill.

Guy's are drawn to play King's College Hospital in the first round of the Inter-Hospital Tournaments, to be played by January 28th, 1913.

Births.

CAZENOVE.—On 28th November, at West Norwood Lodge, Knight's Hill, West Norwood, S.E., the wife of W. R. Cazenove, M.R.C.S., L.R.C.P., of a daughter.

REYNOLDS.—On December 16th, at Rossendale Lodge, 17, Streatham Hill, S.W., the wife of Russell J. Reynolds, M.B., B.S. Lond., L.R.C.P., M.R.C.S., of a son.

Marriage.

DICK—BRISCOE.—On 10th December, at S. Michael's, Blackheath, by Rev. Canon Barnes Lawrence, assisted by Rev. G. E. Weeks, LL.D., Vicar of S. John's, Lowestoft, Frederick Adolph Dick, M.B., B.S., second son of the late George Alex. Dick and Mrs. Dick, of Blackheath, to Elizabeth, youngest daughter of the late Thomas Paul Briscoe and Mrs. Briscoe, of Blackheath.

Death.

EVANS.—On 29th November, suddenly, at Broomfield, Crosby Road North, Waterloo, Liverpool, John Henry Evans, M.R.C.P., in his 73rd year.

Ed.—J. A. R.

The Wills Library
Guys Hospital Medical School
London, SE1 9RT